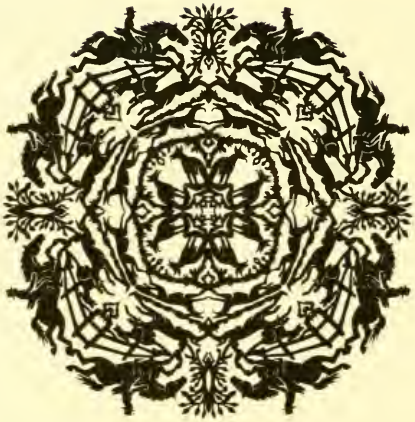
THE MANUAL OF EQUITATION

of

THE FRENCH ARMY

for

1912



JOHN A. SEAVERNS

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of

The French Army

for

1912

Translated at
The Cavalry School

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10 CAVALRY

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FOREWORD

Were there no sound theory of horsemanship based upon simple practical principles, mounted instruction of troops could not be progressive and systematic, and young officers would not be sufficiently equipped to accomplish their tasks as instructors.

THE MANUAL OF EQUITATION AND HORSE TRAINING is intended to furnish this much needed information.

It contains, however, no innovations, but merely sums up the teachings of the old Masters, such as, Pluvinel, de la Guerinière, Comte d'Aure, Boucher, Generals L'Hotte, Faverot de Kubrech, de Baeuchesne and Jules de Benoist, and applies to horse training, the known laws of the association of sensations, as well as the traditional principles of The Cavalry School.

While paying due respect to the fundamental rules of classical equitation, everything that is no longer adapted to present day conditions in the employment of the horse must be eliminated, and only that which is simple and practical retained.

The Manual comprises three principal parts:

1. The Education of the Rider.
2. The Education of the Horse.
3. The Use of the Trained Horse.

PART *I* treats of the instruction of the rider according to his grade in the military system. It is necessary to simplify the instruction of the recruit in order to hasten his entry into ranks and at the same time, to push the training of the horse as far as possible. These opposing considerations have made it necessary to modify former methods.

The *principles* remaining always the same, instruction should henceforth be modified according to the ability and requirements of the different classes of pupils, i.e., young soldiers, reenlisted men, noncommissioned officers who are to train remounts, or the officers charged with instruction. The instruction is classified as, *Elementary, Secondary* and *Superior* equitation, according to the classes to which addressed.

In order to abridge this manual, it has seemed best not to repeat in Chapter I, which is devoted to *Elementary Equitation,* the lessons prescribed for recruits which are set forth in Part II of the Drill Regulations. But the Board has tried to indicate those things which should influence the instructor in the course of his daily lessons.

Secondary Equitation treats of the management of the horse (conduite du cheval) ; it includes a detailed study of the natural aids, with a brief reference to the artificial aids.

This chapter has been drawn up according to the principles of the School of Versailles, transmitted to The Cavalry School by Comte d'Aure, whose "course in equitation" (cours d'equitation) approved by War Department regulations dated April 9, 1853, sets forth the means by which a rider may overcome or avoid the difficulties which arise from the use of the horse.

Chapter III is devoted to *Superior Equitation,* and gives only a general view of the purpose and means employed. The genius of high schooling (the *haute ecole*) is the genius of art and does not lend itself to words.

PART II treats of the education of the horse. It consists of two divisions, in which are set forth the best methods for conditioning and *breaking* (debourrage) the young horse, and the rules which govern his *training* (dressage).

It studies the mental characteristics of the horse, and the principles that may serve in the establishment of an equestrian language which is indispensable for the accord of rider and mount; and it gives the gymnastic exercises which enable the horse to respond to the requirements of man.

A table sets forth the several phases of this education and the work which corresponds to each phase. This table is merely a guide and should be considered only as a type of systematic progressive training.

PART III assumes both man and horse to be trained and lays down the necessary rules for the use of the horse out of doors under normal conditions and in combat. The principles here given may serve as a basis for the mounted instruction given

to noncommissioned officers and to former soldiers (on mobilization).

The manual does not pretend to solve all the problems which may arise; long practice with the horse alone is capable of that. Its object is only to put current ideas in order and to facilitate the tasks of the instructors to whom it is exclusively addressed.

Officers may draw from it the appropriate principles to impart to those under their command. But they alone, the officers, be it understood, must be qualified with the knowledge and ability to demonstrate and explain these principles.

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MANUAL OF EQUITATION AND HORSE TRAINING

GENERAL PRINCIPLES

OBJECT AND DIVISIONS. The object of military equitation is to produce troopers skillful in the management of their horses under all circumstances and over any country.

Mounted instruction therefore comprises the practice of approved methods for instructing recruits; the study and use of the indispensable principles for mounted instruction of old soldiers and noncommissioned officers; finally the application of approved rules in the training of remounts.

The study of military equitation is divided into three parts:

1. The education of the rider.
2. The education of the young horse.
3. The application of the principles of equitation and horse training to the use of the horse.

PART I. EDUCATION OF THE RIDER. The education of the rider assumes a trained horse. This part of the instruction comprises that which is particularly applicable to the man; it describes the qualities of the instructor and the methods to be followed to develop the rider's aptitude. It aims to establish the moral quality of confidence, and the physical quality of muscular suppleness. It teaches the best means for holding on, and prescribes the principles applying to the position of the rider, as well as those for the guidance and use of the horse.

The achievement of the above qualities, necessary to the educated rider, requires fixed principles and much practice. The instruction, however, can not be the same for all grades of the military service.

ELEMENTARY EQUITATION, is that given to recruits, and its phases are contained in The School of the Trooper, Mounted; it comprises only that which is absolutely essential to the trooper in ranks.

SECONDARY EQUITATION, forms the principle object of this

manual. It is intended for the use of instructors, who can draw from it the ideas to impart to noncommissioned officers and selected troopers in the course of their instruction.

Instruction in Superior Equitation is more especially reserved for officers who, besides being skillful and bold riders, should endeavor to acquire all the *finesse* of the art. It is the object of the riding instruction given at The Cavalry School.

These several teachings differ from each other only in their extent and in the indication of methods, which are more or less elementary or scientific according to the ability of the riders to whom they are addressed; they are all based upon the same principles, however, and tend toward the same objective, which is to insure a *unity of doctrine* indispensable to the proper use and progress of the Cavalry.

Part II. The Education of the Horse. The education of the horse assumes, on the other hand, a trained rider; it embraces the study of everything which concerns the horse. It considers his mental constitution, and the means for establishing his confidence; his temperament, his conditioning, and then the laws of balance and animal locomotion from which are derived the actual principles of training.

Part III. Application of the Principles of Equitation and Horse Training to the Use of the Horse. This part considers the trained rider mounted on the trained horse and lays down rules for use in the daily work.

Observation. There is nothing fixed in these divisions; in practice they overlap more or less. Nevertheless, in assigning a place to ideas and a place to facts, this division tends toward the clarity necessary in the extensive domain of equitation; it directs the efforts of the instructor or rider according to the location of faults—the ignorance or awkwardness of the man or the weakness or bad will of the horse.

PART I

EDUCATION OF THE RIDER

Chapter I

ELEMENTARY EQUITATION

A

SCHOOL OF THE TROOPER

(See French Cavalry Drill Regulations, Pt. I, Art. 2.)

B

ROLE OF THE INSTRUCTOR IN THE SCHOOL OF THE TROOPER

Qualities of the Instructor. The instructor is the principle agent in riding instruction. He should be a horseman; a man of character and force; he should always be an example of propriety, dignity, accuracy and determination.

He establishes a logical progression conforming to the spirit of the Drill Regulations; he assures the regular sequence of steps in the course, he keeps his pupils alert by the variety of his instruction; and each day brings out a new but contemplated element.

The explanations which he gives while mounted are reduced to strict necessity. They are formulated with precision and pronounced in such a manner and place that every rider may hear them. They are never given during fast gaits. On the other hand, no individual fault in the rider's position or his management of the horse should be allowed to pass without correction; it is only by incessant criticism of the same error that a faulty habit may be corrected.

To sum up, the instructor analyses each of the difficulties into as many elements as is necessary in order for them to be overcome. He conducts the work methodically, increasing his requirements gradually.

He keeps in mind that progress does not come from the

movement itself, but from the *manner* in which it is executed.

These prescriptions, taken together, form the general scheme (esprit de methode) of instruction, but not the soul which depends upon the personality of the instructor.

The instructor should, through his ingenuity and pride in his role, discover ideas to introduce and expressions to use which will strike the imagination, amuse, persuade, draw out, and communicate to all his enthusiasm, his self-denial, and his faith.

OBJECTIVES. The preparatory work described in regulations, with appropriate moderations, involves some developments from the instructor's point of view, without which his work will not produce the desired results.

The successive objectives in this first part of the instruction are: To give confidence to the rider; to give him means for holding on; to lead him to acquire independence in the use of his aids; to give him the proper mounted position.

ESTABLISHING THE CONFIDENCE OF THE RIDER. The mounted instruction of the recruit is hindered at the beginning by an unreasoning, instinctive revolt of his nervous and muscular systems which leads to contraction. This is overcome by mounted gymnastics and suppling exercises, by having the recruit ride by the side of an older man who leads the recruit's horse by the longe, and by out-of-door work.

The particular contractions which show up from the beginning of individual work will disappear with the practice of the suppling exercises prescribed in the School of the Trooper.

In order to lose none of their useful effects, a logical order must be followed; beginning with the seat, then the loins, shoulders, arms and head; movements of the thighs and legs must not be undertaken until ease of the body is obtained.

The best suppling, however, is good humor, which leads promptly and directly to confidence.

MEANS FOR HOLDING ON. As soon as confidence is obtained, we must give the rider means for holding on, in order to progress with his instruction. The rider is maintained in his saddle by means of his "seat" and the stirrups.

(a) *The seat.* "Seat" is that quality which permits the rider to remain master of his equilibrium under all circumstances, whatever may be the reactions of the horse.

It is the principle quality to be sought, because it is the basis of stability, and therefore of confidence, and is prerequisite of good hands, without which neither management nor training is possible.

A good seat results from a general decontraction, particularly from suppleness of the loin. The road to it is opened by appropriate gymnastics; it is acquired only after a sufficient amount of trotting and galloping without stirrups, and from riding many different horses. This last item is most necessary to put the rider truly with his horse. Decontraction requires long practice; and in seeking too much in the beginning, we risk abrasions and fatigue—and go contrary to the end in view.

(b) *The stirrups.* It is necessary, then, in order to quickly give confidence to recruits, to make use of a second means of security which will permit them to remain mounted longer and to progress without chafing and without damage to the mouths of their horse—the stirrups.

The trot without stirrups will rarely be used except in the riding hall, or for short rides out-of-doors as a suppling exercise or proof of decontraction. The periods of the trot will at first be short and frequent, then lengthened gradually, to push down the thighs and place the seat; all of the riding-hall work, including jumping, should then be done without stirrups.

Long periods of work out-of-doors, instruction in the use of arms, etc., should be done with stirrups.

Routine work, long sessions out-of-doors, marches and maneuvers, in a word—time—accomplishes the end begun without stirrups in the preparatory work, and gives the men as good a seat as they can acquire in their short term of service.

In this manner the recruits are prepared for the second part of their instruction, *the management of the horse (la conduite du cheval).*

Special Gymnastics for the Rider. The management of the horse depends upon the independence in the use of the aids --the basis of their future accord. This independence is the result of special exercises to which the young rider should be subjected from the beginning of the preparatory work.

The instructor endeavors to obtain:

(1) *The independence of the hands with respect to the movements of the body and legs.*

To obtain this result the instructor requires flexions of the body, progressively more accentuated forward, backward, right and left, suppling of the shoulders, etc. In all these movements the hand or hands which hold the reins should remain in place without stiffness, in contact with the horse's mouth, but independent of the movements of the rider's body. It is necessary to work in a similar manner with the legs. The movements incident to the exercises of raising and rotating the thighs, and of bending the knees should not be conveyed to the rider's hand and therefore should not effect the horse's mouth.

(2) *The independence of hands and legs with respect to each other.*

In order to obtain this freedom of the hands and of the legs, the instructor uses the suppling exercises tending to isolate and to render independent, the movements of a hand or a leg with respect to one another. The most useful movements to obtain the result sought are the rotation of one arm to the rear, first blows to the front and rear, stroking the horse on the right buttock with the left hand and vice versa, tightening and loosening the girth, etc. The instructor watches always to see that the movement of one of these parts of the body does not cause movement of another. The degree of success attained as a result of this work is proven by extending the gait, while sitting to the trot or trotting without stirrups. If his gymnastic work has been well directed, the joints and members have acquired an independence such that the reactions of the horse, received by the spinal column, have no

deranging effect on the rider's hand, which remains light and steady.

From the beginning the riders must be impressed with the importance of these exercises. It is necessary to see, besides, that they neither leave the horse "in the void" nor make too much use of their strength. In a word, one should seek to give them the "feel" of the horse's mouth *("le sentiment de la bouche du cheval")*. This "feel" which is developed gradually will serve to establish the principle of the stretched rein which enables the hand to maintain a gentle contact with the horse's mouth. It must be referred to, and sought from the beginning.

MOUNTED POSITION. The mounted position is defined in the Drill Regulations. By reason of the positions given them, the hand and leg aids can act with a maximum of promptness, aptness, intensity and "finesse."

Certain of the suppling exercises facilitate the play of the joints, and permit the correction of physical defects and the overcoming of the resulting contractions.

A general suppleness having been acquired, the instructor seeks a new objective, to *place* the rider and then to *fix* his position at all gaits, on all horses, and over all terrain.

When the instructor commences to take up *position* he should begin the period at the walk in order to place each rider individually before taking up the trot. As soon as the positions are deranged, he must retake the walk, replace the riders properly, and start off again. Hence the necessity, at the beginning, for short and frequent periods at the trot. Thus, correct positions wlil be acquired.

Fixity on horseback is the absence of all involuntary or useless movement and the reduction to the minimum of those that are indispensable. It is the opposite of bouncing. It permits the aids to act with precision and exactitude, and in consequence it leads to calmness in the horse and contributes to his lightness.

It must be understood that regularity of position is subordinate to being *with the horse.*

The ability to be *with his horse* is the most essential quality in the rider. To be well placed generally leads to being with the horse; there are however, some conformations which would only lose by being forced into position.

A good position of the rider depends above all on the manner in which his eyes, hands, buttocks, and knees are placed.

(a) The fact of his having his eyes alert and sweeping the horizon will lead to the rider's holding his head up, keeping the upper body erect, and sitting down in the saddle. Futhermore, from the beginning, the men acquire the habit of observing what goes on around them.

(b) If the hands are well placed, separated as they should be, the nails facing each other, the elbows come against the body naturally; in consequence, the shoulders are squared, the chest is free, and the head is naturally erect. On the other hand, if the nails are down, the elbows fly out, the shoulders come forward, and close on the chest; the head follows the movement of the shoulders, the eyes are lowered, and at the same time the buttocks tend to slide to the rear.

(c) The seat results from the position of the buttocks. They should be as far forward as possible without leading to an exaggerated sinking of the spinal column.

(d) If the knees are well turned inward the muscles of the leg are placed under the femur and the flat part of the thigh bears naturally. The position of the knee controls that of the foot, which hangs naturally.

Suppling Exercises. It may be seen from the above that the suppling exercises play a very important part in the instruction of the rider; but that, also, their use demands tact. Used by some instructors, without order or method, they give only medicore results; by others, however, they very quickly improve even the least gifted riders.

Considered together, the suppling exercises have a triple end, they serve to obtain:

1. General suppleness;
2. Independence of the aids;

3. Regularity of position.

The instructor choses and groups for these three objects the exercises which he considers most suitable.

In the first two cases the exercises prescribed are addressed to the whole class, since the instructor seeks a general result. In the last case, however, the appropriate exercises should be selected for the individual rider, since it is a question of overcoming an individual defect. It must be remembered also that some of the exercises oppose each other, and hence when they are used the object sought must be clearly understood. Thus, the elevation of the thighs, particularly favorable for placing the seat, evidently destroys the benefits derived from the rotation of the thighs, which is intended to bring the flat surface tc bear and to lower the leg.

At the end of several weeks of well-conducted instruction, confidence is established and contractions diminish. The riders commence to find and keep the deepest part of their saddles and their joints are freer; in consequence their movements are more controlled. Position is established. It is now time to take up the management of the horse and to set forth the principles involved.

Chapter II

SECONDARY EQUITATION

THE MANAGEMENT OF THE HORSE

CONDUIT DU CHEVAL

The principles and methods of control necessary for the trooper in ranks are set forth in the Drill Regulations and constitute elementary equitation. That which follows is addressed entirely to officers and noncommissioned officers (cadre) and constitutes "secondary equitation."

The object of the study of the management of the horse is to teach the rider the use of the means at hand to control the horse at all gaits, in all directions, and over any terrain.

To manage the horse is:

To put him in movement.

To regulate that movement.

To direct that movement.

For this it is necessary:

To know the means that nature, art, and science have put at the disposition of the rider (study of the aids);

To harmonize these means (mastery of the aids);

To employ these means (use of the aids).

I

STUDY OF THE AIDS

A complete understanding of the aids, requires inquiry into the physical aptitudes and moral qualities of the man, the study of the so-called natural aids, and a knowledge of the artificial aids.

Aptitudes. Whatever may be the value of the instructor or of his methods, the rider's weight and conformation, his fixity or insecurity of seat, his strength or the lack of it, his suppleness or stiffness, his energy or indolence, his intelligence, esprit, and patience—or, on the other hand, his apprehension, nervousness, or brutality—are factors which have great influence on results obtained in equitation. One should consider

these things carefully in assigning riders to horses, especially to young horses.

NATURAL AIDS. The natural aids are the legs, reins, and weight. The legs and reins serve to put the rider in agreement with his mount; they permit him to judge of the character and temperament of the horse, to transmit to him and impose upon him his will.

The movements of the horse vary according to the positions taken by the different parts of his body and the amount of impulsion employed.

In order to make the horse execute any movement whatever one must first give him a position which permits, facilitates, or determines that movement, and then produce, maintain, increase, or moderate the impulsion.

Rapidity of movement depends on the degree of impulsion.

The aids are the means by which one gives the horse position and impulsion.

Action of the legs. The legs should be fixed—that is to say, in light elastic contact with the sides of the horse. They should be free from all involuntary motion and very definite in their movements. The stirrup is adjusted accordingly. The opposite to fixity of leg is the fault of swinging which confuses the horse.

The legs may *act, resist,* or *yield.* They act when their pressure increases to determine a movement; they *resist* when their pressure remains constant and is opposed to a displacement of the hindquarters; they *yield* when their pressure diminishes and allows that displacement. In the first two cases they are *active,* though in different degrees; in the last case they are *passive.*

(a) When the two legs act simultaneously, the effect should be, if at the halt, to move the horse forward, if in march, to increase the impulsion. Their action should be produced a little in rear of the girth, smoothly so that the horse will not be surprised, but energetically and by free attacks with the calves of the legs if he hesitates to move forward.

(b) When one leg alone, the right for example, acts in rear of the girth, it should have the result, while provoking the forward movement, of pushing the hindquarters to the left. The horse faces to the right if halted; turns to the right, while increasing the gait, if in march. This action should be produced by drawing the leg a little to the rear, not too much, and closing it in progressively so that the horse will not be surprised. If he hesitates to obey, the leg should act by little taps of the calf, and should cease to act as soon as he obeys.[1]

The spur serves in proper cases, to reenforce the action of the leg, and to render the horse's obedience more prompt. It is to the leg what the curb chain is to the hand. It must be used with discretion, and in proportion to the results desired and to the degree of sensibility of the horse. A distinction is made between the energetic attacks which must be employed to push the horse forward, or to punish him when necessary, and the scratch of the spur (pincer de l'eperon) which is one of the niceties of the aids.

Action of the reins. The reins, through the bits, act upon the horse's mouth. For effects to be exact, they must remain adjusted and stretched during work; if they are flapping, the indications of the hand will probably not reach the horse, or if they do, they will arrive confused, or in the form of brutal and awkward jerks. Contact is that gentle liaison which should exist between the hand of the rider and the mouth of the horse; with certain horses, especially young ones, contact is rather an equal and liberal support (soutien); out-of-doors at the fast gaits, and principally in the charge, contact may be transformed to a more or less marked support (appui).

The hands, like the legs, may *act, resist,* or *yield.*

The reins being adjusted, the hands, *act* when they increase the tension on the reins; they *resist* when they offer a deter-

[1] One leg alone, the right for example, acting on the girth, when the left leg opposes the deviation of the haunches, may serve to bend the horse to the right and to lead to the engagement of the right hind under the mass. This action of the leg should be perfectly timed and belongs in the realm of superior equitation.

mined constant resistance to the mouth; they *yield* when they follow the movements of the head and neck.

It is very important to know when they should properly act, resist, or yield.

The actions of the hand should be progressive.

The resisting hand has a very powerful effect without irritating the horse as a live force would do. Its effect is produced by reason of its duration; it should yield when the horse yields.

A hand which acts on the equilibrium or impulsion is called an *active* hand; a *passive* hand is one which, while preserving the contact, opposes neither the impulsion nor the displacements of weight.

The diversity and multiplicity of sensations and resistances, transmitted by the reins from the horse's mouth to the rider's hand demonstrates how great may be the variety of actions of the hand.

Among these numerous rein actions, it is necessary to determine those whose simple and definite effects are sufficient to obtain all of the movements which are useful in military equitation.

(a) The reins regulate impulsion. The two reins, acting together should have the effect of slowing, stopping or of backing the horse. They are called *direct reins*. This action should be produced by fixing the hands and closing the fingers on the adjusted reins, the elbows and hands should move as little as possible to the rear.

The *half halt* is a brief energetic action of the hands which the rider executes, with the fingers closed on the adjusted reins, by twisting the hand quickly, from below upward and from front to rear, without losing contact with the mouth.

It is used to slow up horses that are too ambitious or to carry to the rear the excess of weight that some badly balanced horses allow to come on the shoulders.

It is effected according to need, on one rein, on two together, on the snaffle, or on the curb.

The action of the hand should be regulated according to the resistance which it encounters.

Vibration is a light playing or shaking of one rein, sometimes of two at once. It is executed, like the half halt, on the snaffle or on the curb; it may last for one or several seconds, and is strong or weak according to the resistance met.

Vibration is used to destroy the muscular contractions of the jaw which the horse opposes, instinctively or voluntarily, to the action of the bit.

(b) The hands control, also, the position of the forehand.

The reins act through the mouth on the head, neck, and shoulders; they permit the displacement of the head with respect to the neck; the neck with respect to the shoulders, the shoulders with respect to the haunches. They may even act indirectly on the haunches by giving the shoulders such a position that the haunches are obliged to change direction; which is called "opposing the shoulders to the haunches."[2]

These different effects depend on the direction of tension on the rein, according to whether the hand is carried more or less forward or to the rear, to the right or left, high or low.

One may group the several actions of the hand into five principal series but it is merely a purely theoretical division which facilitates in instruction the study of the aids; between the extreme actions, forward and to the right, rear and right, rear and left, and forward and left, there are an infinite number of directions or tractions, from which the rider will be enabled to obtain the proper effect as he gains in knowledge, experience, and tact.[1]

[2] The term "opposition" as used in connection with rein actions implies an effect of opposing the shoulders to the haunches, which, as is stated in paragraph (b) above, is produced by "giving the shoulders such a position that the haunches are obliged to change direction." This position and result are produced by rein action which changes the direction of the shoulders (forehand) at the same time that it retards them, implying an increased tension on the rein.

[1] These principal actions are those which were taught at the School of Versailles. They were transmitted to the Cavalry School by Comte d'Aure and made generally known by Gen. J. de Benoist.

1. (a) In carrying the right hand to the right, the rider displaces the horse's head towards the right; the right rein is then the *opening rein.*

The rider should avoid pulling on the rein from front to rear, or opening the elbow away from the body.

(b) If the rider accentuates the movement of the right hand toward the right, the neck follows the head, the shoulders follow the neck, and the horse faces to the right while advancing.

2. In giving the right opening rein a tension from front to rear, the rider draws the shoulders of his horse to the rear and right and forces him to throw his haunches to the left. The right rein then takes the name *direct rein of opposition.* This action should be produced by lowering the hand, the fingers being closed on the adjusted rein.

3. (a) In carrying the right hand forward and to the left so that the rein bears against the neck, the rider draws the horse's muzzle to the right, forces the neck at the shoulders to the left, and weights the left shoulder by loading it with the greater part of the weight of the neck. The right rein is then called the indirect rein, or *bearing rein* (elementary equitation).

(b) If the rider accentuates the movement of the right hand toward the left, the increase of weight which results should break the equilibrium and turn the horse toward the left. This turn is made while advancing.

In giving to the bearing rein (right) a tension from *front* to *rear,* two effects may be produced according to the direction in which the rein acts, in front of or in rear of the withers.

4. If produced in front of the withers—that is, toward the left shoulder—the shoulders are drawn to the rear and left, the horse, if he was standing still, faces to the left in backing; if in march, he turns to the left while slowing up.

5. If the action of the rein passes in rear of the withers—that is, in the direction of the left haunch—the rein acts on

the whole mass of the horse and pushes both forehand and haunches to the left.

If the horse is in march, this diagonal action of the right rein, while bending him to the right, pushes him obliquely forward and to the left, provided that the impulsion is sufficiently great to overcome the rearward effect of the rein. The resultant forward movement will be in direct proportion to the impulsion.

These two actions (fourth and fifth effects) of the bearing rein, each tending to oppose the shoulders to the haunches, are called *bearing (indirect) reins of opposition.*[1]

ACCORD OF THE AIDS. The "accord of the aids" is that cooperation which should exist between the rider's legs, hands, and weight, which will permit, facilitate, or hasten proper execution of the movements desired.

1. *Accord of the legs acting together and the two reins acting together:*

The legs give impulsion. The reins regulate the impulsion. The action of both legs together has the effect of producing, maintaining, or accelerating the forward movement.

Tension on both reins together has the effect of limiting the forward movement; that is, of slowing, stopping, or backing.

These two actions, (simultaneous action of both legs and both hands,) then, are totally opposed and should never be produced at the same time, under pain of destroying the impulsion.

When the legs *act* to increase speed the hands should *yield* to allow the increase; then they *resist* if necessary, to limit it.

Likewise, when the reins *act* to slow the gait, the legs *yield*, then *resist* if necessary, to limit the decrease.

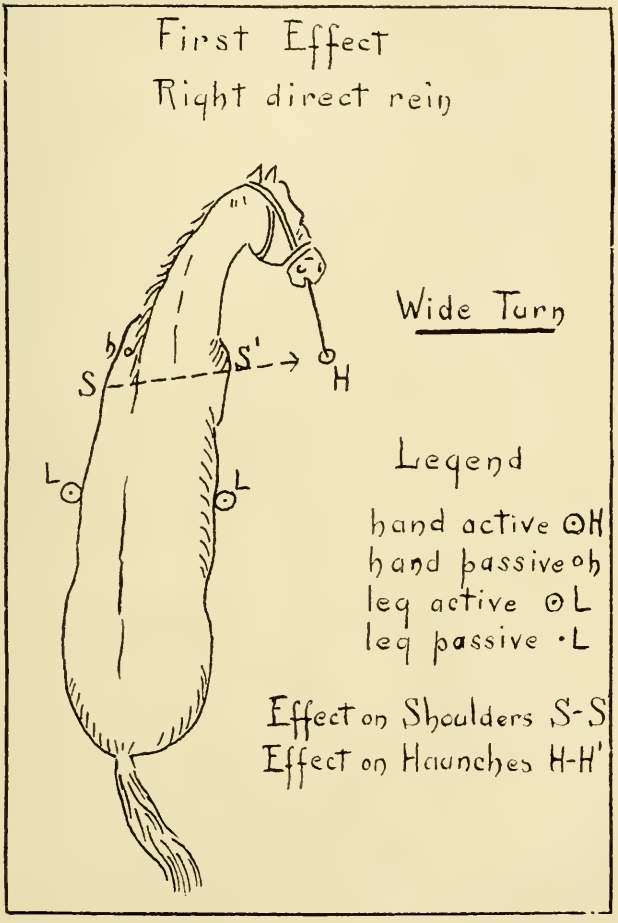
Summing up, in slowing, stopping or backing, the legs oversee the movement in order to regulate it if necessary, but they

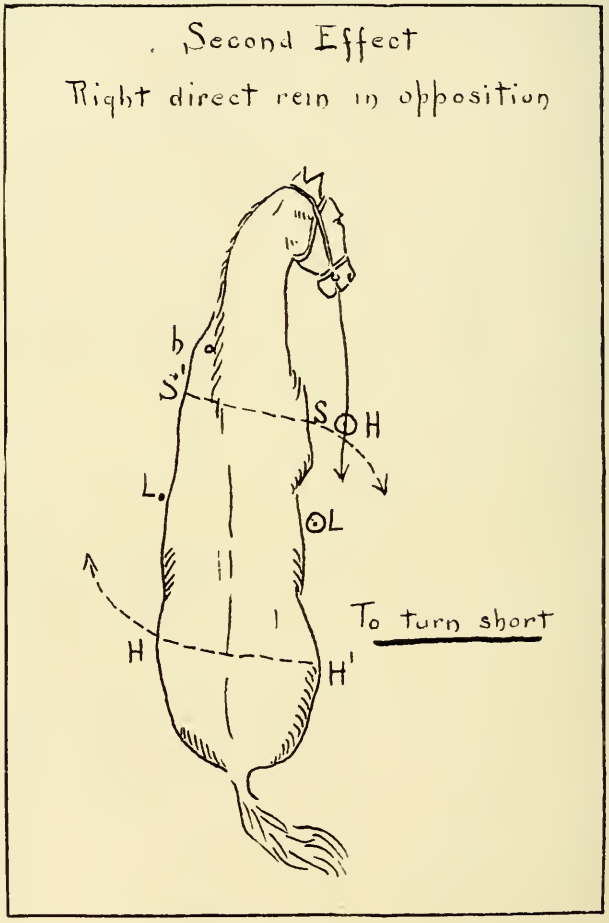
[1] The terms "direct" and "indirect" as used in connection with rein actions apply to the directions in which the rein acts. The "direct rein" acts parallel to the axis of the horse. The "indirect rein" acts diagonally, towards the axis of the horse.

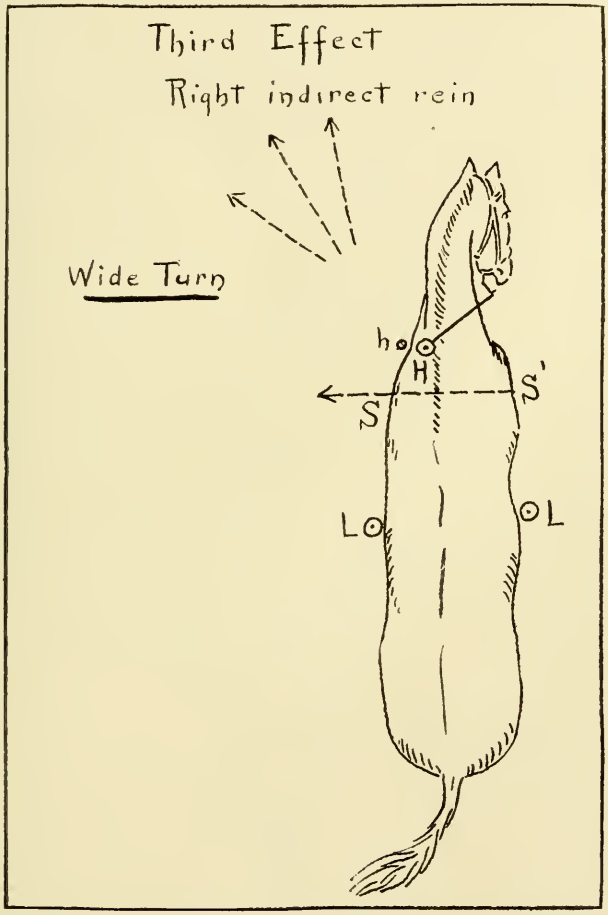
Table showing the five effects of one rein (right rein)—(1) horse moving; (2) horse halted.

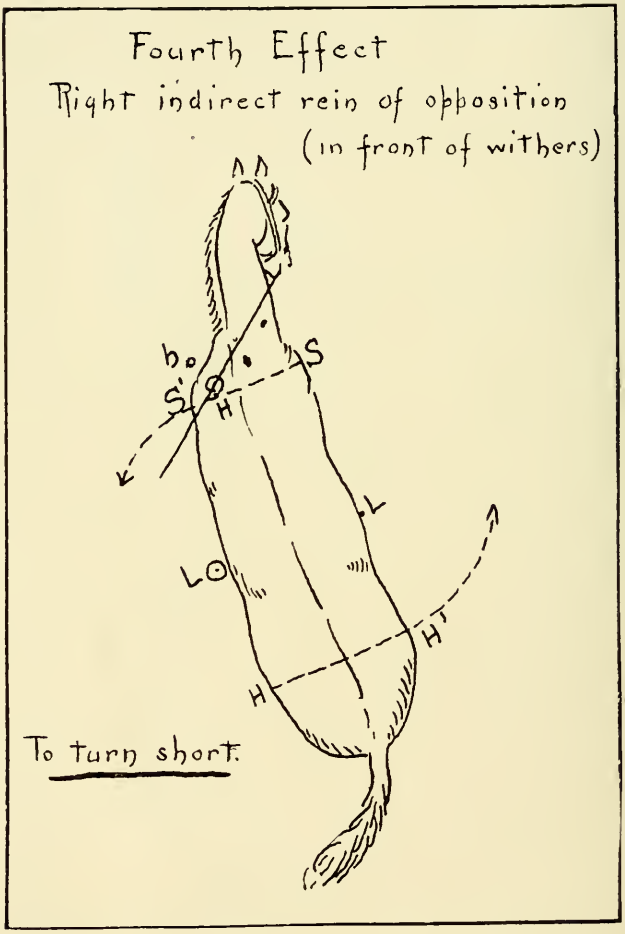
Name.	Right rein (Active)	Left rein (passive)	Effects on—					Result	Reason
	Direction of the traction	Position of the hand	The muzzle	The head	The neck	The shoulders	The haunches		
I. Opening rein.	To the right and forward.	More or less forward and low to yield the left rein as much as desired to allow and regulate the action of right rein.	Slightly to the right.	Slightly to the right.	Bend to the right.	Right shoulder lightly weighted.	No effects	(1) The horse turns to the right. (2) The horse remains still.	(1) The forehead is led to the side on which equilibrium is broken by the excess of weight on right shoulder. (2) Bending of neck too feeble to break equilibrium.
II. Direct rein of opposition	To the right and low.	 do ...	To the right then to the rear.	To the right then to the rear.	Curved in and to the right.	Right shoulder heavily charged.	Thrown to the left.	(1) The horse turns sharply to the right. (2) He turns in place to the right.	(1) The shoulders fall to the right and the haunches go to the left. (2) The shoulders fall to the right; spinal column can not remain bent.
III. Bearing rein.	To the left and forward.	 do ...	Slightly to the right.	The poll leans to the left.	Is bent slightly to the right.	Left shoulder slightly weighted.	No effects	(1) The horse turns to left. (2) The horse remains still.	(1) The body and croup follow shoulders which go to side whose balance is broken. (2) Bending and weighing are too weak to provoke movement.
IV. Bearing rein of opposition in front of the withers.	To the left and rear but in front of the shoulders	 do ...	To the right, then to the rear.	To the right, then to the rear.	Curved in, and to the right.	Left shoulder heavily charged.	Thrown to the right by opposition to the shoulder.	(1) Horse turns to left. (2) He turns left in place.	(1) Shoulders go to left, haunches to right. (2) For the same reason.
V. Bearing rein of opposition in rear of withers.	To the left and rear, but in rear of the shoulders	 do ...	.. do ..	.. do ..	Curved in and to the right.	Left shoulder very heavily charged.	Pushed to the left.	(1) Horse "two-tracks" to left. (2) He takes several steps in "two-tracks" to left	(1) The rein passing by the center of gravity draws the whole mass to the left. (2) Same reason.

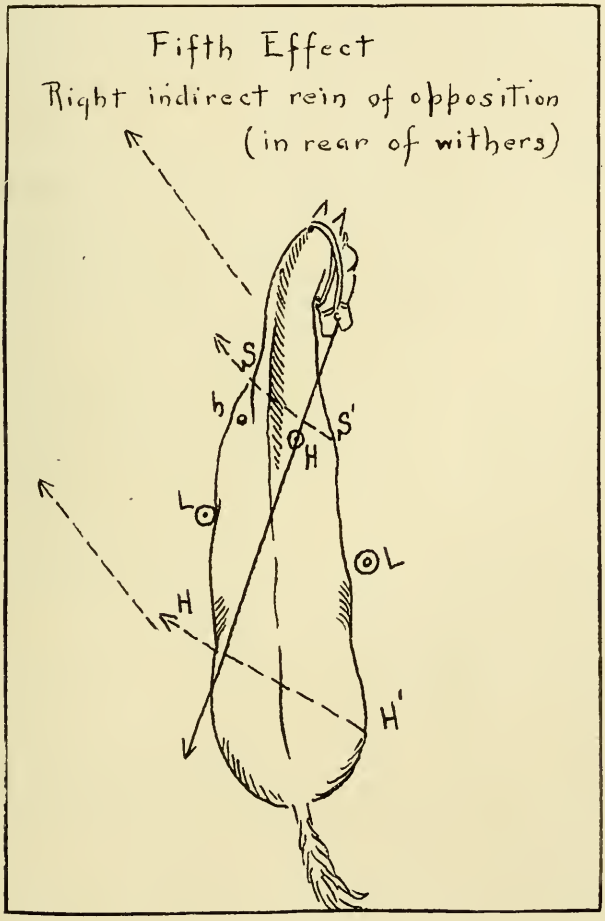
It is understood that the action of the rein does not include the action of the legs.


First Effect
Right direct rein
Wide Turn
S
S'
H
L
L
Legend
hand active ⊙H
hand passive ○h
leg active ⊙L
leg passive ·L
Effect on Shoulders S-S
Effect on Haunches H-H'


Second Effect
Right direct rein in opposition
b
a
S
S
H
L
L
To turn short
H
H'


Third Effect
Right indirect rein
Wide Turn
h
H
S
S'
L
L


Fourth Effect
Right indirect rein of opposition
(in front of withers)
h.
S
S'
H'
L
LO
H'
H
To turn short.


Fifth Effect
Right indirect rein of opposition
(in rear of withers)
S
h
S'
H
L
L
H
H'

act only when the horse has obeyed and in case the impulsion dies down.

When moving forward, taking the trot, or increasing the gait, the reins should be ready to resist at the proper moment in order to regulate the gait, but they come into play only after the horse has commenced to yield to the action of the legs.

On straight lines, therefore, the actions of the hands and the legs should never be simultaneous.

It is evident that the more obedient and highly trained the horse, the more these actions may approach one another without confusion. The "greener" the horse, the more distinct the indications given him should be and the greater the necessity for separate actions of those aids whose effects might be contradictory.

2. *Accord of the two reins.* When seeking to regulate or reenforce the action of one rein by that of the other, care must be taken that they do not contradict each other; if the right hand acts, the left must allow the right to produce its full effect.

Consequently, the left hand not only should not *act*, nor even *resist*; it should *yield*. If it acts simultaneously with the right hand, if it even resists, far from strengthening the action, it can only oppose, weaken, or even destroy it.

Conversely, the yielding of the left hand, when the right acts, allows the action of the right hand to have its full effect.

So, whenever the right rein acts, whether as opening rein, bearing rein, or rein of opposition, the left hand should at first yield to permit the head and neck to take the indicated position, then resist, if necessary, to limit the movement. It then plays the role of the regulating rein.

An action of the left hand may properly succeed an action of the right hand; for instance, an action of a bearing rein may be substituted for an action of an opening rein, but these actions are successive and the principle of the active rein and the passive rein is always observed.

In riding with one hand, the bearing rein acts alone, the other rein hangs loose at the moment of the action. If the two reins are not in accord, they at least do not contradict each other.

3. *Accord of the two legs.* When the right leg acts alone, the left leg should, at first, yield to allow the action of the right leg to produce its effect, then resist, if necessary to regulate the movement by limiting the displacement of the croup.

4. *Accord of the legs with each of the effects of the reins.* Pressure of the legs has the effect of moving the horse forward, of producing movement which the reins direct; likewise, tension on the reins produces effects on the haunches which the legs should coordinate.

There exists then a constant relation between the actions of the hands and the legs. These actions, instead of being opposed to one another, should be combined, strengthened, and made to agree.

(a) The right opening rein leads the weight of the neck onto the right shoulder without opposing the haunches which should follow the direction taken by the shoulders. The legs merely maintain impulsion by an equal pressure.

(b) The right direct rein of opposition bends the neck to the right, carries the weight of the neck onto the right shoulder, opposes the shoulders to the haunches, and throws the haunches to the left. The right leg aids in displacing the haunches.

(c) The right bearing rein causes the head to swing to the left and puts the weight of the neck onto the left shoulder without opposing the haunches. The two legs act equally to maintain the impulsion.

(d) The right bearing (indirect) rein of opposition (in front of the withers) forces the base of the neck to the left, bends the neck to the right, carries its weight onto the left shoulder and throws the haunches to the right by opposing the shoulders to them. The left leg acts to aid in pushing the haunches to the right.

(e) The right bearing (indirect) rein of opposition (in rear of the withers) while bending the neck to the right, has the effect of forcing the base of the neck to the left, of carrying the weight of the head and neck onto the left shoulder, of weighting the left haunch, and of forcing the whole mass forward and to the left, when there is sufficient impulsion to maintain forward movement.

The right leg in pushing the haunches toward the left strengthens the effect and accelerates the movement.

It must be understood that in prescribing the action of one leg the other is not supposed to remain inactive; on the contrary, it plays its part in the impulsion and as a regulating aid as was said above in speaking of the accord of the legs.

Lateral and diagonal aids. Lateral and diagonal effects. In instruction, to shorten explanations, the aids are considered either from the viewpoint of the various combinations which may result from the association of the two hands and the two legs; or, from the viewpoint of the direction of their action, that is to say, of the effects produced.

When the determining aids are placed on the same side of the horse, right leg and right rein, they are called *lateral aids.*

When they are, on the contrary, one on the right, the other on the left of the horse, for example, left leg, right hand, they are called *diagonal aids.*

Considering rein actions alone, with respect to the *direction* of their actions and the *effects* produced: when the *direction* of the hand action is on the same side of the horse as the hand acting, (in other words, is parallel to or away from the horse) a *lateral effect* is produced, example—opening rein, direct rein, direct rein of opposition; when the *direction* of the hand action is *towards* the horse, a *diagonal effect* is produced.

Diagonal effect includes all actions of the hand in the direction of the horse; the right hand for example, acting diagonally from front to rear and right to left (actions of the bearing (indirect) reins of opposition).

Following these definitions, if in the two track toward the

right, the rider uses his left leg and left rein, he employs *lateral aids*; but the left hand acting diagonally from the front to rear and from left to right produces a *diagonal* effect.

If in the same movement, the rider uses the left leg and right rein, he employs *diagonal* aids; but the right rein in leading the head produces, in the direction of march, a *lateral effect.*

These remarks will show how much more apparent than real are the distinctions established by some authors between lateral equitation and diagonal equitation.

True equitation is nothing more than the combination of the different lateral effects or diagonal effects of which we have just been speaking. The rider has two hands and two legs which may act singly or together, laterally or diagonally, and thus produce very varied effects. It is "up to the rider" to use, according to the horse he is riding and the purpose in view, the aid or the aids which should produce the desired effect.

The weight. In studying the actions of the reins it has been seen that under their influence the balance of the horse can be modified even so as to lead him to turn to the right or left accordingly as the weight of the neck is carried on one shoulder or the other. As the shoulders are unequally weighted the forehand moves towards the side to which the excess of weight draws it.

The equal or unequal distribution of the horse's mass upon the supporting members evidently has a direct influence on the direction of movement taken by the whole machine.

When the horse carries a rider, the mass which the members support does not consist of the horse's weight alone; to that must be added the weight of the rider—between 165 and 190 pounds, on the average. The body, which alone amounts to about 100 pounds, may by shifting its position, contribute powerfully to the variations in the balance of the horse provoked by the aids. The rider, then, must be warned not to hinder the movements of the horse by a bad disposition of his weight, but, on the contrary, to favor them by using his weight always in the desired direction.

When moving, stopping, turning, or on two tracks, the rider, by carrying his weight on the buttocks or thighs in the direction of movement, may facilitate and hasten the obedience of the horse. While quite clearly marked in the breaking and training of a young horse, these displacements of the weight become more and more limited as training is perfected.

In superior equitation, they are reduced to a mere *weighting of the stirrups.*

Artificial aids. The artificial aids are the means of domination created by the industry and ingenuity of man to prolong, strengthen, or take the place of his natural aids. They vary with the nature of the horse and the use made of him.

Those which have a current use are, first, the *riding whip,* much used at the beginning of training to teach a young horse to yield the haunches to the action of the leg, and in ordinary riding with mares and sensitive horses who kick at the boot; then the *longeing whip, link straps, martingales, nosebands, Barnum reins, rigid reins, pulley or running reins, etc.* Included also are the various kinds of spurs, as well as the innumerable types of curbs, gag snaffles, rearing bits, etc.

These different means may be useful to quickly prepare a horse for service, to rapidly reassert lost authority and to dominate certain difficult horses in order that their training may progress. But it must not be forgotten that most of these instruments, excellent in certain hands, become dangerous with less experienced riders.

Besides, the results, even though rapidly obtained by these means, are generally only superficial. They can not really take the place of the true education of the horse, which depends as much upon his moral submission as upon his physical obedience to the natural aids.

II

MASTERY OF THE AIDS

However precise theoretically the effects of the legs and reins may be, they can have practical utility only if the aids which produce them are perfectly disciplined and submis-

sive to the will of the rider. It is not sufficient to know these aids, it is also necessary to be master of them.

If the horse does not submit to the requirements of the rider, in the majority of cases it is not due to the ignorance or bad will of the horse; but it is because the weak, incoherent application- of the aids do not require the desired movement.

Coordination and independence of the aids are obtained by *controlling the reflexes.*

If young riders are ordered to act with the left leg alone, the right leg nearly always flies out an equal amount. This one example gives an idea of the great amount of work necessary to control the muscles so as to enable the rider to employ them for a definite useful purpose according to the rider's will.[1]

Without dwelling upon the causes of what is commonly called "awkwardness" (maladresse), it is seen that the role of the instructor includes the bringing about and multiplying the occasions which the young rider has for using the proper aids correctly, first employing them singly, then in combinations.

(a) The pupil holding the reins separated in the two hands is directed to utilize in simple movements, such as the passage

[1] "One must be particularly careful," says d'Auvergne, "to act with only the parts necessary to accomplish the result, for correct execution is prevented by the involuntary action of certain of the rider's parts which may occur without his knowledge. For example the body should not be displaced when one uses the legs or hands; again the knees should not be displaced when one uses the legs."

"It is very essential also not to draw the right leg close if one wishes only to use the left, and similarly not to make use of the left when only the right is required, for the horse will not know what is asked of him. It is necessary to teach each man who mounts a horse the effects that are produced by each leg singly and when used in accord together. It is no less important to know the effect produced by each rein of the snaffle and curb, for often one employs the left when one should employ the right, and the right when one should employ the left, and often both when one should employ only one."

of corners, moving by the flank, and circles; first, the opening rein effects, then, the bearing rein effects and, finally, the effects of opposition, abandoning completely the rein which does not determine the movement.

Example:

"By the right opening rein, by the right flank;"

"By the right bearing rein, circle to the left;"

"By the left direct rein of opposition, half turn to the left."

(b) He is then taught, by composite movements, to substitute the effect of the opening rein for the effects of opposition, or the indirect effects for the opening effects, etc.

Example:

The section marching to the left hand, the instructor will command:

"Half turn in reverse, leave the track by the bearing rein."

"Right bearing (indirect) rein of opposition, on two tracks on the diagonal."

"By the right opening rein, right about."

Or again, the section marching to the right hand:

"Half turn, by the right opening rein, right about."

"By the left bearing (indirect) rein of opposition, on two tracks on the diagonal," then, immediately, "By the right bearing rein, by the left flank, etc."

The pupil will have been shown in the first example that the right rein has been able to produce three effects *according to the different* directions given it; in the second, he will have learned to substitute rapidly the action of the left hand for that of the right and back to the former.

(c) When this practice of one hand alone is well understood and executed, it is necessary to learn, by the same movements, and with the same progression, to act with both reins, but having them in accord, the hands acting, resisting or yielding according to circumstances.

(d) In the end the movements must be rapid and complicated, such as the broken line, serpentine, pursuit, to give the pupil decision and agility.

Concurrent with these increasing difficulties the instructor should make sure that the riders use properly the prescribed actions of hands and legs and that they realize the effects produced. He indicates to them the positions desired for the head and neck, the dangers to avoid, and by constant criticism corrects every fault committed.

The student will thus come to discern the muscles which should act in the execution of the different prescribed movements, to isolate them, to put them into action, and to increase the power and rapidity of their actions. By experience, then, he will have only to acquire the habit of true and timely action to be in full possession of his powers as a rider and to be able to overcome all difficulties.

III

USE OF THE AIDS

When the rider knows the means of control and is master of them, he has only to apply them with tact.

It is solely the application of the means of control which decides and regulates the movement, and directs it towards the accomplishment of a desired purpose.

Practice in the use of the aids gives birth to the *feel of the* horse (le sentiment du cheval) and *equestrian tact.*

The feel of the horse enables the rider to judge the degree of submission or of resistance of his mount.

Equestrian tact regulates the degree of force used by the rider. It leads him to determine the effect to produce, the intensity of that effect, and the exact moment to produce it. It enables him to conquer resistance, or at least to forestall them.

The agents of equestrian tact are the legs and the hands.

TACT OF THE LEGS. The legs can act only in one direction. In their use, then, there is only a question of intensity,

which the aid of the spur renders more powerful. Nevertheless, without entering into a study of the mechanism of the gaits, which is not in the domain of secondary equitation, the rider, by his seat can have a certain feeling of the movements which constitute the *raising, suspension,* and *planting* of the feet; he can profit by this to hasten or retard their play, interrupt their combinations, and hence to correct or modify the gaits.

TACT OF THE HAND. The study of the action of the reins has determined their theoretical effects, but these effects may produce very different results according to the qualities of the hand which provokes them.

The qualities of a good hand are *steadiness, lightness, softness, firmness.*

To have a *steady hand* does not mean that the hand shall remain immovable; it should, on the contrary, move up, down, to the right, and left, according to need, but in the execution of this, it should be free from all involuntary or useless movement.

Steadiness of hand is the first quality to be sought, and is the most important of all for without it, the others cannot be fully developed. The unsteady hand can have neither lightness, softness,nor firmness; its indications are uncertain and the most attentive horse can not obey its incoherent action.

The *light hand* maintains the merest contact with the horse's mouth.

The *soft hand* gives support (le soutien).

The *firm hand* gives a frank, decided bearing (un appui).

The hand should know how to resist authoritatively when necessary, but should yield as soon as the resistance of the mouth disappears, and should return to softness which is always the bond or union between lightness and firmness. It is in this sense that a good hand has been defined as a "force in the fingers equal to the resistance of the horse, but never greater." (De Lancosme-Breves.)

Actions of the hand vary in extent and intensity with the degree of training of the horse. Wide and well defined with

young horses, to clearly express the rider's intentions, they should be reduced, gradually almost to invisibility as training progresses.

At the beginning, the forearm, wrist, and hand participate in the action of the rein aids. With a trained horse, however, it is only by a closing more or less energetic, or by an opening, more or less complete, of the fingers that the rider transmits his will. Effects of *traction, pulling,* sometimes even of force, are through education finally succeeded by effects of mere *indication.*

To sum up, equestrian tact consists in choosing the correct determining and regulating aids, in assigning to each its proper action, resistance, or passivity, and then by means of the aids, causing the effect to fall upon the *point selected,* (keeping in mind the seats of resistance which are the mouth, shoulders and haunches) and as nearly as possible at the *instant desired,* so as to take advantage of the laws of balance and locomotion.

The role of the instructor is here much restricted because, not riding the horse himself, many resistances escape his observation. The pupil must, therefore, redouble his efforts to be honest with himself as to his faults. If he does not judge his own actions properly he will make no progress. It is practice, founded on sound principles that should be his real teacher.

Chapter III

SUPERIOR EQUITATION

EDUCATION OF THE OFFICER

Superior equitation is only the normal development and exact application, in the use of the horse, of the principles which serve as a basis for the instruction of troopers and non-commissioned officers. It is the specialized teaching of The Cavalry School and is addressed always to a select personnel. Its object is to develop the spirit of eneterprise in officers and tc make them competent instructors, well versed in the various requirements of their role.

From the theoretical point of view, this instruction includes a knowledge of the teachings of the most famous schools of equitation, as well as the diverse methods of training enunciated by them. It also comprises a thorough study of all subjects of which a true horseman should have knowledge.

In practice, besides the boldest riding, it involves a thorough study of the employment of the horse based upon logical principles, as well as the application of the known laws and methods which have for their object the training of the horse.

Superior equitation also teaches the man to preserve, in the midst of the greatest difficulties, a seat of perfect form and security, and an exactness and "finesse" in the application of the aids, together with an absolute understanding of their use; and finally, the ease and correctness of position which prove the rider's self-control and his freedom from all self-consciousness.

It seeks in the horse perfect calmness and obedience, constant impulsion in the forward movement, an absolutely straight position and lightness in all movements.

Without including the teachings of the "high school" it nevertheless borrows certain of the airs pertaining to higher equitation, such as two tracks and the change of lead, the practice of which marks a further degree of submission of the

horse to the aids, while developing in the rider, to a higher degree, equestrian tact and the feeling of the horse.

In imposing upon both horse and rider, precision of movement, perfection of position and gracefulness, superior equitation follows the traditions which are the fundamentals of the French School. The qualities which it develops are a powerful element of discipline because they increase the prestige of the officer and strengthen his authority by enabling him to prove his superiority in the daily work of his command.

PART II

EDUCATION OF THE HORSE

Chapter I

THE RIDING HORSE

Qualities of the Riding Horse. The military mount should be able to carry considerable weight, march rapidly and over long distances, have endurance, hardiness, and handiness. These qualities are derived from natural balance, gaits, conformation and quality.

Natural balance allows the horse to remain always master of his strength, to be able to use it under the rider's weight, to pass easily from a slow to a fast gait and conversely, to have supplenss of action, or in other words, the natural characteristics which make him easy to ride from the beginning.

Usage alone proves the value of a horse; experience, however, allows the establishment of general rules which guide in determining the good points to seek in the colt and in estimating his quality.

If the horse's back slopes slightly upward towards the croup, his withers well shaped a little higher than the croup, and his chest well let down so as to hold the girth away from the elbows, the saddle will remain in place. The rider and pack, located between the two pans of the scale as it were, will not interfere with the horse's equilibrium nor bruise the shoulders. This conformation, together with a good direction of the hocks,

makes the horse naturally manageable and facilitates his control in combat. In daily work the strain is distributed properly over all the springs of the machine, so that no part is worn out prematurely.

His gaits should allow him to cover the maximum distance with a minimum of effort. This requirement excludes high action in favor of the flowing extended strides which are the least fatiguing for horse and rider.

The trot is the principal marching gait, the gallop is the gait of combat. More than ever the present necessities of war require a prolonged and rapid gait. The military horse should be, above all else, a galloper.

A relatively long ischium is a characteristic of the galloper. (Fig. I.)

Activity is indispensable for a cross-country horse.

It is characteristic with horses having a wide angle between the humerus and scapulum and with powerful hind quarters.

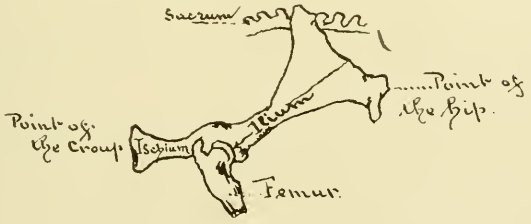


Figure 1

Our Ischium comparatively long is a characteristic of the galloper

A long, sloping shoulder blade, withers of good height and direction place the weight of the rider properly, thereby assisting the horse in maintaining his balance, but it is the length and verticality of the humerus rather than the direction of the shoulder which gives freedom of gaits and leads to agility by facilitating the placing of the forefeet.

The power of the hindquarters, the source of propulsion for either forward or retrograde movements, enables the horse to

move his mass at will, and consequently renders him master of his equilibrium; it gives him free use of his hocks to engage or extend them, it permits him to regain lost balance, to take his entire weight on his haunches, or to lengthen his stride according to circumstances; in a word, he is made master of his direction and speed.

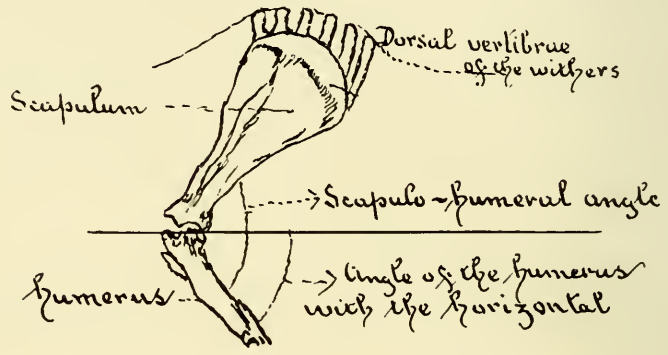


Figure 2
Good opening of scapulo-humeral angle.

Finally, his confidence in his long sloping shoulders permits him to land lightly and without apparent effort after taking an obstacle, but it is the extension of his hindquarters which gives him the necessary power to clear it. The ilium, then, for the riding horse must be wide, (Fig. 3.) that is to say, the outer angle (at the point of the hip) well defined; the inner angle high and above the lumbar vertebrae. This conformation of the loin is characteristic of Irish horses and is commonly called "the bump of jumping," though why it should be an aid to jumping is unknown.

THE MODEL. If we add to these qualifications a neck, preferably long, but of greater importance—well "set on" (junction of cervical and dorsal vertebrae), and withers, the processes of which are prolonged far to the rear, we have the model of a horse which is the ideal sought.

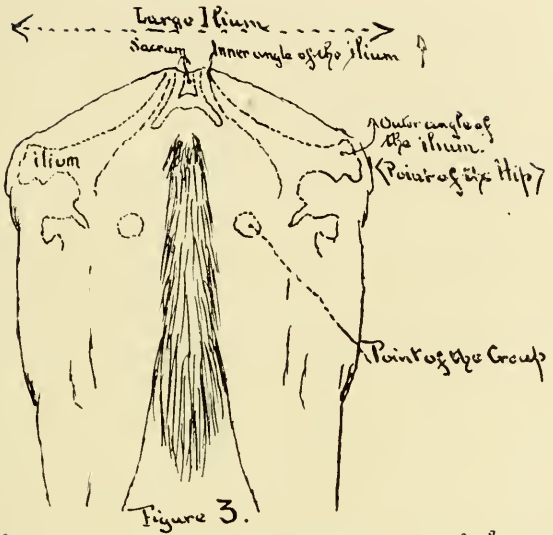


Figure 3.

The ilium, then, for the saddle horse must be large.

One of the first qualities of the saddle horse is the ability to carry his saddle properly, that is, with the girth resting well behind the elbows.

The other points of beauty and strength are a well-shaped head, above all, well attached to the neck.

A large intelligent eye;

A neck, well proportioned and well set on;

Withers, prominent, sloping far to the rear, and a little higher than the croup;

A sloping shoulder;

Humerus long and well let down;

Forearm powerful, long, wide and muscled;

The chest ogival and deep;

The back wide and muscular.

The loin short and wide, with good muscles behind the saddle;

The croup symmetrical, long, slightly inclined, and muscular;

Hips wide and prominent;

The muscles of the buttocks, thighs, and gaskins well developed, and descending as low as possible;

The flank short and full;

Knees low, wide, thick, and clean;

Cannons strong and short;

Hocks wide, straight, and well let down;

The feet tough and dry, correctly sloped, symmetrical density in all tissue.

These points taken together will generally favor balance as well as the useful gaits of the horse, which are a walk, free and extended; a trot, starting from the shoulder, long, easy, and regular; a gallop, sweeping, powerful, and extended.

QUALITY. Quality results from the power and resistance of the organs in the fulfillment of their functions—from the *blood* which supplies energy for the resistance by the organisms to the ordinary causes of weakness, and from "bottom" which is endurance under any usage.

Good character alone permits a complete utilization of quality.

Quality in the horse is derived from various sources. It is influenced by substantial feeding from an early age. Some limestone regions increase the growth of bone and the density of tissue in horses born or raised there; but above all, quality results from the *breeding* of the horse.

THE BREEDING. The Army requires a comfortable, strongly limbed type of horse, capable of carrying weight. It should have the qualities of endurance, energy, and speed which the thoroughbred stallion alone transmits.

The pedigree of the horse should therefore show a considerable number of thoroughbred ancestors. In breeding, the blood lines of the sire and dam should be carefully considered so as to secure the proportion of blood to produce the qualities desired, thoroughbred to keep up the "blood' and half-bred to provide substance.

RELATION BETWEEN BREEDING AND TRAINING. The Anglo Arab race, the result of crossings of the hardy native Arab,

with the thoroughbred or half-bred Anglo-Arab, produces remarkable riding horses.

The coach horse breeds, bred for their trotting ability, only occasionally transmit to their descendants the balance and gaits necessary for the riding horse. Many of them are found, however, amongst the cavalry remounts.

The "quality" of the colt has a great influence therefore, on the ease or difficulty of his training. The education of horses bred for the saddle, is a quick and easy matter.

His training can be almost entirely obtained by a well-ordered course while putting him in condition.

The natural balance of the horse makes him manageable; he is free from pain, and therefore sets up no resistance. The simple execution of the ordinary movements suffices to make him obedient to the aids, at the same time to strengthen him.

On the contrary, with horses lacking the necessary aptitude, training presents more difficulty. It consists in seeking, finding, and demanding such a position as will lead to better balance and which will best favor impulsion, cause a better distribution of the natural forces, overcome physical defects, and change, by means of repeated lessons, his natural aptitudes, so as to favor greater returns.

Chapter II

Generalties. Quality and gentleness are essential elements in the cavalry horse.

They can be obtained, or at least largely developed by the care given to the education of the young horses.

Influence and Responsibility of the Commanding Officer. The colonel facilitates, by every means at his command, a systematic and complete course of training which must be considered as the foundation of the mounted efficiency of the regiment. By frequent inspections, by reward and encouragement of all kinds accorded to officers and soldiers who distinguish themselves in horse training, the colonel exercises a personal influence on the nature of the results obtained. He

gives orders for the proper maintenance of riding halls, prescribes regulations for out-door riding squares, and provides for the construction on the drill grounds, of paths on which horses may be galloped in all weather.

Together with the Department of Public Works, he controls the upkeep of the soft paths which follow the national and departmental highways. He thus testifies, by the large share of responsibilities which he assumes, to the importance which he attaches to he success of this training, and in consequence, to the zeal which everyone should show in the work.

No horse is admitted to the ranks without having been presented for the colonel's examination by the rider who trained it.

Influence and Responsibility of the Troop Commander. In each troop the training is conducted under the responsibility of the Captain. All lieutenants, sergeants, and corporals and certain selected privates participate in this work.

The training given to young horses by noncommissioned officers and privates is under the direction of an officer especially equipped for this work, and chosen by the troop commander.

Qualities of the Instructor and the Trainers. The officer detailed for this work is selected from among those who have already had experience and possess special aptitude; but is must be borne in mind that among these aptitudes, the first requirements are *common sense and a methodical disposition,* without which the most brilliant qualities will fail to produce good results, and may even prove harmful.

During training the young horse should be always mounted by the same rider. A series of conventions between man and horse, results from this constant association, which when employed serve as a starting point in the education of the horse. Training takes precedence over all other troop work excepting recruit instruction. For this reason, soldiers employed thereon are relieved from guard and fatigue duty while the work lasts.

The soldiers employed for *breaking* are chosen from among those who love horses, like to care for them, and who are known for their patience and gentleness.

The noncommissioned officers and men conducting *training* should, in addition to being horse lovers, be well instructed and skillful riders, else there can be no hope of success. In fact it requires a well-trained horse to make a good rider, likewise, only a skillful rider is capable of *training* a horse.

Care Given on Arrival in the Regiment. On arriving in the regiment, young horses are quarantined and placed for several days under the supervision of the senior veterinarian, who watches their state of health; this quarantine is maintained only as long as necessary. They are then issued to the troops to which assigned, grouped in each stable and submitted to a special regime, for the purpose of acclimatization.

The preliminary objectives in their care and training are to maintain their health, to mold their temperaments to the requirements of military life, to strengthen them by well regulated feeding and exercise, to make them accustomed to man, to familiarize them with shoeing, grooming, saddling and bridling, as well as with the weight of the rider.

Object of the Education of the Young Horse. The lessons in training are given sometimes in groups and sometimes singly, taking into consideration the skill and experience of the riders, the character of the animals, and the exigencies of the service, time, and the surroundings.

Troop horses, to be regarded as completely trained, should be able to execute everything prescribed in the school of the trooper, and especially, they should be perfectly quiet to mount, should move freely and true on a straight line, be manageable at all gaits and in all changes of direction. They should jump or pass obstacles of all nature, endure the pressure of the rank, leave it freely, bear all parts of the equipment, not be frightened at the sight or sound of objects out-of-doors, and be accustomed to the use of arms.

The very numerous means of training are left to the initiative of each instructor, but they should all proceed from two fundamental principles:—the establishment of the confidence of the horse, and the methodical progression of requirements on the part of the rider, based upon the association of sensations.

There are numerous means of establishing confidence, of which the most useful are caresses, rest following the least sign of obedience, relaxation of the reins and legs, passing to the walk after a fast gait, or even dismounting after a difficult result is obtained.

One should never lose sight of the benefit to be derived from making the training progress methodically and without haste.

Nevertheless genetleness and patience must not exclude firmness. Persistence in the use of the aids, energetic use of the legs or spurs, and, in exceptional cases, the riding whip, the longeing whip and cavesson, are means which may be employed upon those horses whose disposition requires them to be dominated.

The occasions on which any of these means should be employed, and the proportion in which they should be combined cannot be laid down in rules; the tact of the trainer is shown by their judicious application. However, the officer charged with the training exercises a constant and strict supervision over the manner in which the riders use the various means given them to secure the submission of the horse.

At the end of a course of training, the condition of the horses, the cleanness of their limbs, and their good dispositions are the best criterion of the skill with which the work has been directed.

DIVISIONS. *Breaking and Training.* The education of the young horses should continue for two years. Experience has proven the absolute necessity for this rule under the present conditions of raising horses, and it should not be disregarded, except in case of mobilization.

The preparation of the troop horse for his career comprises

two periods, each corresponding to a definite and distinct objective.

(1) *Breaking,* to which is devoted the first military year of the colt (4 or 5 years old) ; its object is his physical development, which is obtained by appropriate work, and the formation of his character.

(2) *Training,* properly speaking, to which his second military year is devoted (5 to 6 years old) has as its objective his complete submission to the aids.

These two years, in spite of their special denomination, do not constitute two clearly divided periods; they represent together the necessary time for the remount to respond physiologically to the requirements of military service. The words *breaking* and *training,* nevertheless, each carries its own idea which constantly reminds the instructors of the great difference in the work which an immature colt may endure and the requirements which may be made upon a horse of 6 years. One should submit the young horse to the necessarily severe gymnastics of training only when his "morale" on the one hand, and his physical development on the other, allow him to undergo it without fatigue.

The progression observed in the exercises, to which the young horse is submitted in his development, constitutes a true conditioning, with laws, principles, and a hygiene based upon the horse's nature itself.

In training, the progression is naturally similar to that employed in the instruction of the rider. This methodical order, naturally, proceeds from the simple to the complicated, it regulates the demands of the rider according to the ease with which the horse is able to answer them, and varies the combinations of the aids in an increasingly difficult progression.

Care must be taken, particularly in the beginning, to execute the movements under the same conditions and in the same manner, until the horse is confirmed in his knowledge of the rider's demands by the effect of repetition. It is only very gradually that an obedience, at first laborious and uncertain,

will be later transformed into almost instinctive habit.

At the end of the second year, between the return from maneuvers and the 1st of January, the "training colts" work with the old horses, during troop instruction, and thus learn to obey different riders. This forms a useful transition from training, properly speaking, to the time when the horses enter definitely into service.

Circumstances Which May Influence the Duration of the Education of the Young Horse. In the education of the young horse it is necessary to take into consideration certain conditions which may greatly influence his training. Health, age, race, previous feeding and work, character, and natural balance or lack of aptitude for the saddle, are some factors which may impede or hasten the progress of the work.

Certain aged horses sent directly to the regiment from the remount depots may be assigned on their arrival to the 6-year old training sections. Others, on the contrary, and particularly discarded brood mares should be kept in the breaking sections until their development is sufficient.

General Rules. The instructor must study and weigh all these considerations. He draws from his experience the appropriate methods to obtain in his objectives which are to have the young horses at 7 years healthy, free from blemish, and able to fulfill on varied ground all demands of the soldier in campaign.

The instructor will be guided by the principles set forth and developed in Chapter IV of the second part of this work, and by the following rules, which should be constantly in mind:

Never commence work without being absolutely sure of what is to be done.

Proceed, in the education of the horse, from the known to the unknown, from the simple to the complicated.

Always use exactly the same effects to obtain the same results.

Remember that in the execution of every movement, position should precede action.

Never ask anything of a horse which is still under the impression of a preceding requirement.

Never combat two resistances at once.

Do not confound the rider's lack of skill with the ignorance or bad will of the horse.

Demand the *new step* at the end of the lesson. Pat the horse and dismount.

Aside from these rules it must be remembered that during the whole course of the young horse's education one must be content with a little progress every day; demand that, but no more.

Chapter III

BREAKING

Objects in Breaking. The objectives in breaking are: 1st. To obtain by hygiene, feeding and work, the complete development of the physical forces of the young horse.

2nd. To give him the elementary ideas of the aids and to prepare him for submission to their discipline.

Its principal objective, then, as stated, is to progressively put the colt in condition. The various steps through which the colt has passed, including the time spent in the remount depot, where he has undergone a certain amount of work, serve as the beginning of this conditioning, and facilitate breaking.

Certain military and physiological requirements necessitate the division of breaking into several phases, each phase having an object imposed by these requirements.

Phases. The dates which fix these steps are:

1st. The beginning of January, by which time the gentling should be accomplished.

2nd. The early part of March, when he undergoes periods of drills for mobilization;

3rd. The departure for maneuvers (the middle of August), which marks the end of breaking and provides an almost complete rest.

The periods of shedding and when the horses are put on grass, complete the series of landmarks which will appear again in the second year.

Importance of Work. Work is the most important factor in breaking. Besides the role which it plays in the development of the organs of the young horse, it is the means by which his health is regulated and character developed.

If the young horse does not work enough, he becomes too fat, too playful; he blemishes himself under his own weight, increased by that of the man, and he spoils his mouth by struggling against the hand that seeks to hold him down.

Nevertheless, the colt should be in rather high condition.

He should have long slow rides out-of-doors (one and a half hours at least) and shorter ones in the riding hall (a half hour).

The use of felt or flannel boots is recommended for the protection of the legs, especially during work on the longe.

Work Not Mounted. *Leading.* Leading at the side of old horses during the first few days is an excellent exercise, permitting the colt to expend his energy without danger to his legs, to become accustomed to outside objects, and to become calm, which is indispensable to his progress. Numerous occasions when it is necessary to lead military horses, make this a useful lesson, though it is not necessary to keep it up very long. In these walks, the colts should be led first on one hand, then on the other to avoid always bending the neck to the same side.

Work on the Longe. The results to be sought during the first phase are: Obedience to the longe, immobility while being mounted, to bear the weight of the rider and to move out freely and straight to the front in the new equilibrium imposed by the addition of the rider's weight.

Work on the longe is most useful in training. It familiarizes the horse with man, while revealing the latter's strength as his master, and thus he learns his first ideas of obedience.

The longe permits him to be worked at fast gaits without fatigue, to expend his energy when he cannot be mounted or when his rider is absent; if vicious, to be dominated by hard work, without fear of injuring him. Work on the longe is the basis of training for taking obstacles. One should profit by the authority which it gives the man over the horse to accustom him to being girthed, to carry the saber, for the first mounting lessons (with difficult horses) and finally to teach him to range the haunches by use of the riding whip.

All horses should be perfectly trained in this work.

The cavesson used for this work should be wide enough, well stuffed, padded and adjusted so that in working on a circle, the cheek strap cannot injure the eye on the outside. The noseband should be placed high enough not to hinder his breathing, and should be snug so that its action on the nose will not be too violent.

The longeing whip is held butt to the front, in the right hand when the horse works to the left, and vice versa. It is kept out of sight as much as possible, should serve only to threaten or to give light touches only, and should never have a lash on the end.

The first lessons are of such importance that they should be given by the instructor himself, or by noncommissioned officers of experience and proven skill. If these lessons are well given, they are reduced to a few periods of short duration.

The instructor grasps the longe with his right hand, 18 inches from the horse's head; the remainder of the longe, folded in figure of eights, is held in the left hand.

After giving the horse confidence by petting, the instructor moves forward, pulling lightly on the longe, at the same time clucking to the horse; he moves thus, accompanied by the horse, around the riding hall or inclosure, tracing straight lines and gradually making more abrupt changes of direction. He stops frequently, saying "Whoa," pats the horse, then passes to the off side, changes the longe in his hands, and repeats the lesson to the right hand.

If the horse moves forward at the cluck of the tongue, stops at command, and moves willingly without pulling, the instructor stops moving on straight lines, lets the longe slide a little, and puts the horse on a small circle of 2 or 3 yards radius. He avails himself of the longeing whip or riding whip if necessary, and himself moves on a concentric circle, a little in rear of the horse's shoulders, so as to keep him moving. He will often stop the horse, go to him and pat him, and then move him forward again.

In the same manner the horse is worked in the circle to the other hand. If the horse hesitates to move forward, the instructor slips to the rear and in toward the croup, at the same time yielding with the hand which holds the longe. If need be, an assistant may help him. The important thing is not to be abrupt with the horse, and not, by frightening him, to run the risk of making him pull.

When the horse moves easily on the small circle, to either hand, calmly at the walk, the rest of the training is easy.

The instructor makes the horse take the trot, and then the gallop. To quicken the gait he uses the voice or shows the whip. At the beginning he always accompanies the horse in his circular movement, keeping towards the rear, even with the haunches. If he wishes to stop the horse he moves toward the shoulders; it is only very gradually that he reduces his own circle until finally he stands practically immobile.

The length of the radius varies according to the extension of the gait. A slow trot on a small circle furnishes an excellent gymnastic for the colt. On the other hand, the extended trot or gallop on a small circle, would cramp him and be dangerous for a young horse with soft joints.

If the remount escapes abruptly, the trainer must, after having yielded freely to his movement, resist with the hand and bring him back gradually.

If the horse stops, the whip may be pointed toward the croup to cause him to move forward. If he cuts in on the circle the whip may be pointed toward the shoulders to force him out.

If the horse pulls violently on the longe at fast gaints, it is because his training has proceeded too fast in the beginning. Rest him frequently and recommence the work at the walk and slow trot on the small circle.

The early lessons may be made easier by working in the corners of the riding hall.

The wall may render service also in stopping a horse which is out of hand.

The voice, loud at first, should now obtain the same obedience when used more gently.

The longe also communicates the instructor's will to the horse. By light horizontal oscillations the horse is kept away from the center. By a more or less marked traction on the longe, one may slow the gait or stop the horse when he does not obey the voice.

If the work on the longe has been well conducted, the horse should be calm and regular on the circle; pass freely from one gait to another at the simple indication of the voice; come toward or go away from the center according to the liberty accorded; in a word, be on the hand (in contact) through the medium of the lightly stretched longe, as later on he should be, through the lightly stretched rein.

ACCUSTOMING TO THE SADDLE. When the horse has been calmed by work and is perfectly gentle on the cavesson, the trainer may profit by that condition to gradually induce him to bear the girths, a lesson which might prove difficult if attempted in the stable.

The saddle is put on at first without stirrups or stirrup straps. The girth is quite loose at first, and then tightened gradually during the work. When the horse is accustomed to the contact of saddle and girth, the stirrups are added and allowed to hang down on each side while the horse moves at the walk and trot.

He is thus prepared for the mounting lesson, which becomes an easy operation. It is a fact that defenses nearly always result when young horses are saddled and mounted for the first time, on the same day.

Mounting Lesson. The instructor determines according to circumstances, the most opportune moment for giving the mounting lesson, but he profits by the fatigued condition of the remount at the end of a work period, at which time the colt is most apt to be calm.

The lesson may be given also during the work on the longe, but only after the horse has been relaxed by the exercise of longeing. He personally directs the first mounting lesson, which is given to each horse individually and displays the greatest calmness and patience in this lesson.

Accompanied by an assistant carrying a basket of oats if need be, the instructor places himself squarely in front of the horse and pats him; he takes hold of him only in case of necessity. The rider approaches the horse's head, pats him on the forehead, over the eyes, on the neck and haunches. He slaps the saddle, lowers and raises the stirrups, then takes the reins, leaving them very long. He mounts smoothly without hesitation or hurry. If, during the lesson, the horse moves out of place or backs away, the trainer comes back to the head, draws him forward with the snaffle reins and quietly begins again.

When putting his foot in the stirrup the rider is careful to point his toe downward so as to avoid touching the horse's side which might disturb him. He should not pause after raising himself in the stirrup for, when his entire weight is in the stirrup on one side it breaks the equilibrium and makes his task more difficult. He should use his right hand to assist him in taking the right stirrup; feeling for it with the toe might frighten the horse.

Generally, he should avoid moving the horse forward as soon as he is in the saddle, so as to prevent the idea of the forward movement from being associated in the horse's brain, with that of his reception of the rider's weight.

It is best for the first few times to terminate the day's lesson by the mounting lesson, so that the cessation of work and his return to the stable may serve as a reward.

Those horses that are found very difficult are immediately put back on the longe.

The mounting lesson should be given on both the near and off sides. This phase of instruction of the young horse should be carried out very thoroughly. Absolute calmness must be obtained even in the midst of noise and movement,—such as might be expected in war, when it might be most valuable to have a perfectly still horse to mount. However, it is well not to require too much at the beginning.

Training to Bear the Saber. The longe may be utilized to assist in accustoming the colt to the saber, and as in general it may be for all new requirements. It is wise to wait until the close of work to give the lesson.

To begin with, only the scabbard is put on. When the horse bears that without fear, the saber is added and he is then exercised at the three gaits. This work, it should be understood, is interspersed with halts, caresses, and frequent rests.

This, however, is only a preliminary step toward the series of exercises which accustom the horse to the management and use of the saber and which take place during work on the road.

Mounted Work. *Out-of-doors and in the Riding Hall.* As soon as the horse accepts the rider, his conditioning must be begun. This work of conditioning goes on without interruption until the end of the military year—that is, until the departure for maneuvers. It should take place out-of-doors whenever possible.

The remount working in the fresh air and on straight lines naturally acquires his full strength most rapidly. Nevertheless, the first sessions should take place in the riding hall to enable the instructor to exercise closer supervision, to give him a better opportunity to study his men and horses, and to avoid the greater possibility of accidents outside.

At the start some old horses mixed in with the colts may have a very good influence on the whole section.

The riding hall is used also when the temperature requires it. Advantage should be taken then to give the colts the first lessons of the aids.

Elementary Lessons in the Aids. This preliminary education is important in order to permit the horse to be handled out-of-doors. It consists in teaching him to move forward at the call of the legs, to slow and stop at the tension of the reins, and to turn with the simple action of the reins.

The horses are bitted with double snaffles when the resources of the troop permit; otherwise with single snaffles. Special attention must be given to the use of proper bits, correctly adjusted.

To Move Forward. *The base of all training is freedom in the forward movement.*

It is necessary then, from the beginning to teach the horse to respond to the action of the two legs. This lesson is the first one given and should be repeated frequently. For the first sessions the following rules are appropriate:

1st. Do not let the legs remain glued to the side of the horse; act by repeated impulses.

2nd. Touch the horse near the girths; not too far in rear.

3rd. Begin by giving this lesson in passing from the walk to the trot, then in extending the trot, finally in passing from the halt to the trot.

4th. Reenforce the action of the legs, if necessary, by following these actions immediately by clucks with the tongue, or even with light whip taps on the shoulder. This last suggestion is more particularly applicable when the lesson is given in the riding hall. Outside on the road, and especially when marching behind an old leader, the colts have a natural tendency to move forward in order to follow him. That is another reason in favor of working out-of-doors at an early date.

In the forward movement the reins should always be stretched. Otherwise, instead of being inclosed by the aids, the horse is uncertain of his direction; he wabbles from side to side, and the rider cannot direct him.

It is easy to maintain the reins stretched with energetic horses which have natural impulsion; it suffices for the rider to maintain steady hands, and without discouraging the spirit

of the horse, to gradually moderate his excess of ardor. It is more difficult to teach lazy, cold-blooded, or grass-raised colts to go up to the hand. These, as a rule, only stretch their reins when tired, in order to support their heads. With such horses, from the very beginning, the rider must seek the mouth. Later on, strengthened by regular work, the remount having learned the habit of taking contact with the bit, when urged by the legs, will stretch the reins of his own accord. When the horse obeys the action of the legs, or even the taps of the heel, work on straight lines at the walk, trot, and gallop will lead him gradually to take the desired support on the hand, hence the rider should be careful not to discourage him by undue severity.

A set hand with fingers closed, would only cause confusion to the horse's mouth, and would have the effect of sending him back from the bit.

Thus, in the first lessons in the forward movement, the hand should not oppose the extension of the neck; the fingers, on the contrary, should be ready to yield in order that the neck may stretch out and that nothing may interfere with the willingness of the horse in his movements forward. The legs are active, the hands passive.

With some particularly cold blooded horses, who obstinately remain deaf to the call of the legs, it may be well to use the spurs at an early date. But even in this case the spurs should have dull rowels, or be preferably without rowels.

With well-bred horses it is the rule not to use spurs during the first lessons.

The use of the spurs in most cases does not necessitate a special lesson; the horse nearly always responds to them by a bound forward.

With mares or balky horses, which kick at the leg and refuse to advance, it is generally sufficient to put them on the longe and make a vigorous use of the driving whip coincident with the rider's attack with the legs.

HALTING. To halt, the rider progressively closes his fingers and raises the upper part of his body rearward.

He regulates the severity of his hand to the degree of sensibility of the horse's mouth.

In halting, the horse should remain straight and up on the bit.

Nervous horses, those which engage their haunches too greatly and those with a tendency to back, should not be halted frequently. On the other hand, those which, from their conformation, have too much weight on their shoulders should be frequently halted. Training is nothing else than a search for balance, and the halt is an excellent gymnastic for those horses which, high and powerful behind, are difficult to slow down.

TURNING. Horses are accustomed to being led in a snaffle bridle; this familiar opening effect of the rein, which is always accepted by them, serves as the starting point in their education.

To turn to the right, the rider opens the right rein gently, carrying the hand forward and to the right. The other hand, which does not act, must be carried forward and low so as not to contradict the active rein.

It is very imporant that all sensations which the colt is made to experience should come to him distinctly and perfectly clearly.

The opening effect of the rein should be produced laterally, and with the least possible action from front to rear. It provokes, nevertheless, a slight slowing up, which should be combated by action of the legs.

When the remount is well confirmed in the forward movement, in order to confirm and fortify the action of the leg, advantage is taken of the fact that the action of the opening rein tends to have the same results as the action of one isolated leg. The colt is thus taught the action which results from the opening of one rein and the closing of one leg, and he is habituated to carrying his haunches away from the acting leg.

When the horse readily obeys the action of the opening rein, at the walk and trot, he is taught the action of the bearing rein. In view of the gymnastics to which he later will be submitted

when he is guided by one hand, he is taught to turn to the right, for example, by action of the left rein. To obtain this result, it is well to take advantage of the corners of the hall, or exercise the horse in turns by the flank, abouts, or other circular movements with the opening effect of the rein; and as soon as the horse commences to obey, to substitute the action of the bearing rein by immediately carrying the left hand (for a turn to the right) forward and to the right. The opening rein serves as a sort of interpreter for the bearing rein. As soon as the latter comes into play the action of the opening rein should be discontinued, and the right hand lowered to allow the bearing (left) rein to produce its full effect. After repeatedly alternating the effects of the two reins closer and closer together, the action of the opening rein is diminished, and then gradually eliminated, as the horse comes to understand more clearly what is being asked of him.

BACKING. Backing is a movement of secondary importance in breaking. It should only be executed dismounted, and then limited to a few steps.

Before taking the young horse outside, he must understand and be responsive to the signals for four different actions. All possible movements and all gaits are derived from these four elementary actions, and it is necessary that they be taught as soon as practicable, and taught separately, before they are associated in producing combined effects.

These actions are: To move forward at the pressure of the legs; to slow up or stop at the tension of the reins; to range the shoulders; and to range the haunches.

These elements being thoroughly understood by the young horse, the ordinary exercises of equitation judiciously adapted to his means, to the maturity of his development, and to his physical condition will accomplish his education.

The accomplishment of these latter (the ordinary exercises of equitation) will be the role of training properly speaking.

FIRST LESSONS AT THE GALLOP. If special tracks, sanded or turfed paths are not available, all work at the gallop for young horses must be given on the soft footing of the riding hall.

With horses from the South (thoroughbreds and Anglo-Arabs—Translator) who gallop naturally, a simple closing of the legs suffices to break their equilibrium and causes them to take the desired gait.

It is different with horses from the Northwest, which are often cold-blooded, or descended from a race of trotters. With them, taking the gallop by extending the trot is painful and should be strictly forbidden, as it is frequently a cause of disorder and accident. On the contrary, by starting from the slow trot on the circle, or a turn at the end of a movement, by the flank for example, the horse may be induced to fall into a gallop with the desired lead. In any case the aids to employ are the action of the outside rein (indirect rein of opposition) and the action of both legs. These actions, while holding back the inside, provoke a rupture of equilibrium in the direction of the movement and oblige the horse to take the gallop. A few clucks of the tongue will assist the first efforts.

The rider helps maintain the gait by swaying with the rhythm of the gallop, continuing the action of the legs, and gently accompanying with the hand the play of the neck.

At the end of a few lessons, the gallop departs become more and more calm.

It is not necessary to gallop young colts often. It is the *time spent at the gallop* and not the number of *departs* which counts with them. Outside, as in the riding hall, the instructor gives this lesson to only a few horses at a time; he regulates the number and the duration of these gallops by the temperament, character and breeding of the horses. Those not galloping walk about individually, or are given the mounting lesson, etc.

Preliminary Conditioning. Work out-of-doors should commence just as soon as the colts are accustomed to the man's weight and have a sufficient idea of the aids to insure their being guided without danger of accident.

Fresh air, the use of gaits according to the nature of the ground, regularity of gaits and the progressive increase in their speed and duration, and the periods of rest and relaxa-

tion, intelligently intermingled, are the elements at the disposal of the instructor to attain his end, i.e., the normal development of the organs of the young horse.

ORGANIZATION OF SECTIONS: LEADERS. The instructor groups the colts according to their breeding, character, temperament, and gaits. The examinations which he has been able to make of them during the first sessions in the riding hall, the descriptive lists from the remount depots, record of performances, and the age at which the colt was bought, all aid him in making this preliminary grouping.

Each day, on leaving the stable, the instructor examines the colt's legs; he then has them marched around him at a walk, studies their appearance, condition and expression, and questions the riders about their feeding, character, difficulties encountered, and results obtained. After this, the instructor re-groups them according to their ability for work, or designates those which should be given individual work.

Each group is divided into small sections of four or five horses each. These sections take their exercise on different roads or at sufficient distance from one another to assure independence, and hence calm, in each section. At the head of each section, at least during the first few days, an old horse is placed to act as leader.

VALUE OF THE VARIOUS GAITS. The *walk* plays an important part in conditioning because it can be sustained a long time without fatigue. At its full extent it supples all joints, strengthens and hardens the tendons, and engenders calmness and power. By accompanying with the hands the play of the neck, which is very pronounced at the extended walk, the horse gains confidence and develops the habit of keeping contact with the bit. For these reasons, this gait should play a very larger part in breaking.

The trot is useful in the beginning, at first for "taking the edge off," then for putting him in the forward movement while teaching him to accept the support of the hand which he will meet and which is necessary for him to march straight; thus

inclosed by the legs which push him forward and the hand which supports him, the horse acquires the habit of fixing his neck in the direction of movement, which facilitates his later training.

From the physical point of view, the trot stimulates the circulation at the same time that it develops the muscular system.

The periods at the trot, in the beginning, should be frequent and short. The length is increased as the horse commences to come into condition.

The gallop is the gymnastic par excellence for the young horse; it puts him at once both on the haunches and on the hand, and it develops his respiratory faculties to the highest degree. It is a gait which the horse should be able to sustain for a long time without fatigue; therefore training for it must be started early, but because of the mechanism and power of this gait, it will not be used outside except on good ground. Lacking favorable ground, it will be preferable to gallop only in the riding hall, until the horse is more developed.

Outside there is no question of proper leads; the instructor proceeds as in the riding hall by breaking the equilibrium, and he regulates the length of the gallop by the progression of his work, and above all by the physical condition of the horse.[1]

In the beginning, the bringing on of a struggle in order to regulate the gait, which might be harmful to the colt's mouth, interfere with his gaits or kill his natural impulsion, should be avoided. In all this part of the work, the objects of which are, above all physical development and the establishment of confidence, the rider plays, a passive part so to speak, and makes every concession which will not have bad results on the health or character of his horse.

Defenses of the Young Horse. Here a distinction must be made between meanness and playfulness. While the first should be suppressed from the beginning, it would be wrong

[1] These gallops at first very short—400 to 500 yards—are increased progressively to reach at the end of the period 1,500 to 2,000 yards.

to punish the waywardness of a colt. When the rider feels the colt ready to jump, he should close his thighs and lower legs, lower his hands, close his fingers, and wait.

Likewise, when the colt escapes the hand, and bolts out straight to the front, or jumps to one side, no attempt must be made to collect him, as ignorant riders do, by a regular action of the aids (since the colt barely understands them when he is calm and at slow gaits), but the hand should be steadied and then, when the colt is calmer, he should be stopped, put in the right direction and moved forward. This method of procedure, even with old horses, always gives the most certain and prompt results.

Under any circumstance, the instructor cautions patience and gentleness.[2]

Use of the Double Bridle. When the remounts give themselves over freely in bold and extended gaits, and when they accept the support of the hand without hesitation, the double bridle may be put on without fear, remembereing always to demand nothing but work on straight lines until the bars of the mouth are accustomed to the bit. Thus the danger of letting the colts acquire the bad habit of overloading the shoulders and boring on the hand is avoided. However, it is best not to use curb chains at first and to choose mild mouth pieces.

In training there is no regulation way of holding the reins. The rider must determine, according to his objective and the resistance he meets, the method of holding which permits him to utilize most effectively the appropriate actions of curb and snaffle.

Preparation of the Colt for His Ultimate Use in Case of Mobilization. After several weeks work, the preparation of the remounts for their ultimate role which they will be called upon to play on mobilization, must be begun. While following

[2] In addition he should be guided in this by the most famous masters of the French School who have as their maxim "Do not weary the young horse or suppress his gracefulness, because it is with horses as with the bloom on fruits, which when faded never returns." (Pluvnel. Le Manege royal.)

strictly the established program of the development of the horse, at the same time one may, for example, carry the saber and use the double bridle on road work, from time to time to accustom the remount to the pack, to the distinctive head dress of the rider, to the cuirasses, to the handling of arms, standing still or at the walk, and to work in ranks (school of the platoon). Likewise, by taking them to the target range they may be accustomed to the sound of firing.

HYGIENE. The hygiene of young horses should be the subject of continual thought for the instructor who has them in charge.

Grooming plays a large part in the upkeep of the horse's health. To obtain the best results rivalry among the men should be stimulated by every possible means. The troop commander and the officer in charge of training visit the remounts in their stable daily, regulate their feeding hours, satisfy themselves that the horses are eating well, that their teeth are in good shape, that they receive the prescribed ration, order the proper substitutions according to season (carrots, etc.,) prescribe the days and hours for mashes and their composition, and see that they have a good bedding, which alone will secure them the rest necessary to their health.

Once a week they have the horses, in snaffle bridle and stripped, led out by the men who ride them, so as to better examine their appearance and the state of their legs. They carefully examine the feet and the shoeing.

SHEDDING AND THE PERIOD ON GRASS. The period of changing the hair (March-April) and the time when young horses must be fed principally green food (May-June) are, for them, depressing. An easing up of work becomes imperative at these periods, as well as an increase of feed to combat the physical depression the effects of which may often be felt for quite a while.

CHOICE OF GROUND. The choice of ground plays an important part in the work of young horses. Without exaggerating the precautions necessary, there should be chosen, especially

for galloping, soil just as soft as possible; the drill ground track, sanded parades, side paths of the roads; and as a last resort, the riding hall. On hard ground the joints tire, and the lower parts of the legs are blemished. A heavy or slippery surface also provides grave difficulties, the joints are apt to be strained and windgalls and bursal enlargements appear. But when the colt has gained some experience out-of-doors, is stronger, and more developed in his gaits, taking him over broken and varied ground is good practice. His initiative is awakened, and if given great freedom of neck, he learns to depend on himself.

INDIVIDUAL WORK. Individual work, which can only be outlined in the riding hall or on the drill ground, is performed very regularly out-of-doors. On the first day when the return to the stables is begun the instructor divides them into groups, whose size will be diminished each day, and has them go home by different roads. These groups further divide up, until finally the colt is accustomed to work alone. The requirements are increased until each shows absolute freedom and quiet.

The mounting lesson is frequently given during work out-of-doors. Results acquired in the riding hall have value only as they serve as the base for the utilization of the horse in campaign.

HARNESS. War Department instructions prescribe the breaking to harness of a certain number of young horses destined to draw the regimental transport in maneuvers. They are chosen from among those animals showing most aptitude for the work. This training is quieting for certain particularly nervous and excitable horses. For this purpose, the regulation breaking cart, which should be found in each regiment, is used, or, if need be, the forage wagon.

FIRST INSTRUCTION OVER OBSTACLES. It is advantageous to commence the colt's training over obstacles at an early date, provided only freedom and skill are sought. An exaggerated effort must not be demanded, but at the same time he must be taught to respect the obstacle; so he is exercised over low, stiff ones.

LEADING. The horses having been taught by the work on the longe to follow their trainer without hesitation, advantage is taken of this to make them pass in the same manner, in hand, over all the small natural obstacles that may be found, such as ditches at the side of roads, little brooks, up and down banks, slopes, etc.

The instructor should not forget that his aim is to develop skill, that this is only obtained by calm; and that calm can only come from the patience of the trainer.

So no violent methods are allowed in this work.

Nevertheless care must be taken that the horses do not profit by the amount of liberty which is thus necessarily given them, to turn on the man and strike him.

Passing obstacles by leading the horses should not be regarded solely as a step to jumping mounted, but also as an end in itself. It is a manner of crossing obstacles which must be cultivated and perfected.

A troop must count on using this method as well as must a lone rider who finds himself faced by a difficult crossing.

ON THE LONGE. As the colt gains in strength, the instructor adds, for each of them, some lessons in jumping on the longe or at liberty. These exercises increase their agility, and develop their strength, their balance, and consequently their confidence.

To jump on the longe, the horse is put on a circle, or rather on an ellipse, so that he will always have a certain space of ground to cover on a straight line before taking off. This allows him to measure his strides; and obviates his having to turn too short after jumping. The instructor, to maintain him on this ellipse, is required to move considerably on the long axis. He should always be level with the horse's croup when the latter arrives at the obstacle.

At the moment of the jump and for the first few strides which follow, he allows the longe to slide.

One commences with the bar on the ground. It is not raised until the horse passes it at the three gaits without hastening or slowing the pace. To calm the horses and induce them to

raise the forehand, it is advantageous to make them jump a long time from the walk and trot.

Every time, during the course of training, that the horse shows apprehension or lack of energy the bar is put back on the ground. The kind and height of the obstacles is varied often, and the horse should be worked on both hands. The full extent of the horse's power should never be sought; it is by patient, quiet, and repeated work, over small obstacles that his aptitudes are developed and he becomes a sure jumper. The instructor should consider jumping as a difficult exercise and give the lessons himself, aided by skillful noncommissioned officers.

At Liberty. Jumping at liberty in a circular chute or in the riding hall may be employed usefully to perfect the style of some horses, or to teach others who hold back, to jump in their stride. But it is a very delicate instruction which necessitates the presence of the officer with all his vigilance.

Work in the circular chute renders the horse calmer than that in a straight chute because he may be made to continue going in the chute and jump several times in succession.

This chute is built on ground measuring about 45 meters long and 20 to 25 meters wide. It is composed of two tracks, one within the other, each consisting of two straight sides joined by suitable curves. Each track is 3½ to 4 meters wide. The inside fences which inclose them should be 1½ meters high, the outside one 2 meters high.

On the straight sides suitable obstacles both in height and width are distributed, and made so that they may be jumped in either direction. The interior track, reserved especially for the gymnastics of jumping, has only obstacles whose height may be varied according to the ability and degree of training of the horse. The outside track, for the development of the horse's skill across country, includes the more impressive solid obstacles which the trooper may meet across country—banks, mounds, road crossings, streams, ditches, etc. Obstacles of width must be insisted upon; ditches, covered ditches, and

streams, frequently found out-of-doors, must be insisted upon.

The instructor remains in the central part and directs the horse's work by the voice and longeing whip.

MOUNTED. When the horses jump skillfully and without hesitation they are made to cross, mounted, several of the most simple obstacles. In this case it is well to have them preceded by a leader. The riders endeavor to leave the neck absolutely free, taking hold of the pommel if necessary.

Chapter IV

TRAINING

General. The schooled or trained horse is one that understands the rider's intentions from his slightest indications and immediately responds to them with exactness, lightness and energy; in other words, he is sensitive to the leg and light on the hand.

Training is distinguished from breaking, in that during the colt's fifth year—the usual breaking period—acclimatization and physical development are of the utmost importance, for the rider must at this time make many concessions to the young animal, whilst in the sixth year the horse must submit to the demands of the rider and must give him complete obedience.

Training should not be started until the horse, strengthened by fresh air and rational conditioning, is free in the forward movement and has confidence in his rider, and is in shape to learn the language of the aids and to subject himself to their requirements.

To obtain good results, training must be based on a sound doctrine; it should follow a method, and should conform absolutely to the rules of both.

A *doctrine* is a group of principles whose validity has been established by experience and justified by reason.

The fundamental principle of training concerns itself with the development of a calm, forward moving, straight and manageable horse.

The *method* of training prescribes the various means of execution and regulates the order of their use. In application it varies according to the particular end in view and to the circumstances of time and place. It is influenced by the temperament of the instructor and the skill of the rider.

The method of training herein set forth has as its objectives:

1st. The development and exploitation of the horse's physical strength and moral qualities.

2nd. His submission to the aids, obtained by a rational and progressive education and without the use of force.

3rd. The search for balance.

The progression of the training as suggested herein does not include rules or manner of execution. Wherever movements or figures are mentioned their execution is not entered into in detail.

The training value of such figures depends entirely on the manner in which they are executed, it is the position imposed on the body of the horse by the rider's aids which makes them of value. A rider may execute all of the figures prescribed in the regulations in the most approved sequence and never obtain the least result. Another, working on these same figures but with a clearly defined objective and using his aids towards the attainment of this objective, will train his horse very quickly.

Principal Factors in Training. The Instructor. *The ability* of the *instructor*, as well as that of the *rider*, plays a very important part in training. The instructor should possess a profound knowledge of the horse and of the theoretical and practical science of equitation, and he should have a thorough understanding of the method of training. And in addition, if his explanation is not sufficient, he must be able to demonstrate in a skillful manner any point in question.

The Rider. The personal ability of the rider is however the principal factor in the training of the horse, for however excellent may be the method of training, the quality of the horse, or the capability of the instructor, the horse will never be wholly obedient if the rider does not understand his part thoroughly. The primary requisite, therefore, for the training of a horse is a skillful rider.

The Work. Any method of training not based on the conditioning of the horse is not a military method. In training, as in breaking, outside work will always remain the essential part. The instructor must maintain the proper proportion

of outside and riding hall work so that the conditioning of the young horse will keep pace with his training.

Under normal conditions the work in the riding hall should not exceed a third of the whole; and the sessions in the riding hall should not exceed three-quarters of an hour each during which time frequent rests are allowed.

TIME. One should not forget that whatever may be the rider's skill, the physical and mental development of the colt vary with each individual. No scheme of training can hasten the natural growth and development of the remount or substitute itself for the work of time. Patience and gradual increase of effort are most effective in training; to go slowly is, in this case, to go quickly. (Aller lentement, c'est aller vite!)

PSYCHOLOGY OF TRAINING. INFLUENCE OF CHARACTER AND CONFORMATION. The horse's mental make-up has much to do with his education. We must study it in order to take advantage of it.

The chief mental characteristics of the horse is his memory. This faculty aids training if proper use is made of it. On the other hand, it makes errors dangerous; it is difficult to retrain a horse—that is, to make him forget bad lessons.

Natural aptitude varies in different animals as do also the qualities of intelligence. Some understand at once what is asked of them, others are very slow to learn.

The horse is usually docile and tractable; he is sensitive to good treatment, to the voice and caresses. Blows will not subdue him; they only serve to make him irritable and suspicious.

He is capable of attention and reflection, since often he will execute in the morning movements which were difficult for him the evening before. He is imitative and it is on this trait that the use of leaders is based.

He is patient, but his patience is not unlimited. One of the difficulties in training is to determine the limit of requirements that the horse will endure, and profit thereby during each period.

Training disciplines the horse but can not completely transform his character. A mean or tricky horse, however well trained, is always to be mistrusted. The rider may hasten the submission of the horse by studying his mental faculties and taking advantage of them.

His physical make-up and his temperament both require an analytical study. The good qualities that are latent in the horse or the difficulties that are apt to be encountered can often be foreseen by observing the length and direction of his legs, the play of the joints, the functioning of his digestive organs.

Limit of Training. The instructor studies each individual horse, decides the means of training which best suit his case and regulates the work accordingly.

It is not possible to bring all horses to the same degree of perfection; but one should always endeavor to develop the full capabilities of each horse, without however, trying to obtain by force that which the animal lacks the strength or ability to give.

There are some methods of training that aim to subdue finally and completely the horse's mental and physical forces and thus obtain absolute domination over him. These methods are based on the complete *rassembler* on the spur. They are not in the domain of secondary equitation, however, for the requirements of work in the troop and on varied ground make a constant demand on the horse's instinct and initiative.

Basis of an Equestrian Language. In order that man may transmit his wishes to the horse, make use of the animal's intelligence, and thus dominate him, it is necessary to establish between them a sort of conventional language which the rider may easily learn and utilize, and which the horse may as easily understand and accept.

This language is based on the law of association of sensations; *"When impressions have been produced simultaneously or have immediately succeeded each other, it is thereafter sufficient that one of the impressions be presented to the senses in order for the others also to be called to mind.*

For example, if a horse moves forward at the cluck of the tongue it is because one day he saw a whip, felt the lash, and at the same time heard the cluck. Whenever the last sensation, affecting only the hearing, is alone presented, those of sight and touch will come immediately to his mind and he will move forward as he did under the effect of the lash.

Likewise the horse has learned to range his haunches under the effects of the riding whip; later he will range them under the pressure of one leg because the two sensations will have been associated in the beginning.

The movements the horse executes naturally under the influence of the aids are very few. The most docile horse can not obey his rider's commands if he does not understand them. It is by building upon the principle of the association of sensations or ideas, cited above, that one may construct the language which makes for this indispensable understanding. Sight, hearing, touch, and even taste successively come into play, and each has its part in this education.

The elements of instruction are given on the longe. The touch, then the sight alone of the whip, produces the forward movement. With this should be associated the cluck of the tongue for which later on is substituted the action of the legs. In the same way the traction of the longe paves the way for the opening rein, which in turn will serve to introduce the bearing rein.

From the opening and bearing actions of the reins the horse will come at length to understand the actions of opposition. The actions of the legs will follow and finally he will learn to respond to various combinations of actions that cannot be exactly defined but which depend on the tact and finesse of the rider.

It is apparent that there exists from the beginning the need for the greatest clearness in the impressions transmitted to the horse because it is on the distinctness of these first indications that the clarity of the entire later language will depend, and in consequence the rate of progress of the animal's education.

But it is not sufficient that the horse grasp the meaning of the demands made upon him; he must also have the pliancy of will to carry out the often distasteful requirements that his rider imposes.

Here again it is the law of the associations of sensations which offers the means of assuring the horse's obedience. When a well executed movement is rewarded at once and an act of disobedience immediately punished, the horse soon learns to submit to the rider's demands.

The continuous repetition of this procedure will gradually result in a more and more prompt obedience and finally to an absolute and instinctive submission.

To attain this last result, training requires not only gentleness in order not to irritate nervous horses, but also much firmness, for the horse must feel that his master is possessed of infinite power; his submission depends upon it. During the course of training, the time always comes when a difficulty appears, when resistance is offered. The tactful rider determines whether it is due to physical inability or unwillingness. In the first case one must be particularly patient and moderate in one's requirements. In the second case, on the contrary, one must take up the struggle resolutely and emerge victorious lest the horse, by association of sensations, becomes conscious of his strength, and, in consequence, obstinate.

Moreover the trainer must not be deceived into believing that the horse is disciplined because he appears to be resigned. The trainer should be keen enough to foresee the warning signs of impatience and revolt, and to modify or cease his requirements in time.

A horse may be easily prevented from becoming impatient, and yet made to repeat the same series of exercises daily, provided the work is varied; and provided he is given brief periods of rest after well executed movements. These rest periods lessen the monotony and afford the horse needed opportunity to relax.

In order that the horse's education may be complete his obedience must be more than prompt and absolute; it must be

automatic. At this point, the indication of a single one of the aids heretofore strictly combined with others suffices to start the mechanism of association and produce the execution of the movement demanded. In the beginning, in order to obtain even a labored gallop depart it was necessary to use both hands to displace the forehand and both legs to give the position and inspire the impulsion; later, the closing of the fingers on the rein or the mere contact of the boot suffices to obtain this same movement because this action has awakened the remembrance of all the other previous sensations.

It is by *repetition* that associations penetrate the memory; the operation is necessarily one of long duration. But by substituting for the repetition, or rather by adding to it, the *intensity* of a transmitted sensation, the progress is hastened. Strong impressions, even though seldom repeated, engrave associations in the mind more quickly than weak ones which may weary or enervate the horse.

In accordance with these principles the curb bit and spur when properly used expedite training.

If the horse, through distraction, laziness, or bad intent, attempts to avoid doing what is expected of him, the energetic action of the fingers on the reins or a simple application of the spurs will quickly remind him of the established conventions.

Fixing the associations by the intensity of one of the associated impressions is one of the fundamentals of training.

Principles of Movement. In equitation the locomotive energy of the horse is called *forward movement* or *impulsion.*

Impulsion. The *forward movement* is the first degree of impulsion. This quality exists in the horse when he responds to the first pressure of the legs by extending his action without sensibly increasing the height of his movements.

Impulsion is forward movement subjected to the exact discipline of the aids and exploited in view of the object to be attained. It is the basis of training. Its origin is in the hind quarters which propel or are ready to propel the mass forward.

Impulsion may be either natural or acquired; it is the natural instinct in warm blooded, generous horses; in the cold blooded or lazy horse it is obtained as a result of training in response to the aids and dies out as soon as the aids which provoked it are relaxed.

The rider is fully master of his horse only when he is master of the horse's entire impulsive forces. Certain horses are unwilling to recognize this mastership and often oppose it by a most complete inertia; others use their whole muscular power to struggle against the rider, to resist him, or to escape from him completely, but most horses lend themselves generously to the rider's wishes and seem to put all their strength at his service. It is this moral and physical submission to the aids in the forward movement which should be sought above all else in training.

Speed is not a criterion of impulsion. Impulsion is shown much more by the manner in which the horse lends himself to the rider than by the rapidity of the gaits. One horse, marching at the trot or gallop, even extended, may lack impulsion, while another may show a great deal of it at the walk.

This freedom in the forward movement should be carefully guarded, not only during training, but during the whole military life of the horse.

Proper use of the horse's strength leads to proper division of weight, and consequently in turn to balance, mobility and tractability.

BALANCE. The horse's muscular force and his weight are the two elements which unite to produce movement.

Muscular force is essentially productive of energy. It causes the displacement from inertia and its use, therefore, determines whether the distribution of the weight is proper or not.

The object of training is to govern this force at the several gaits, at all degress of speed, and in the changes of direction in such manner as to oblige the horse to execute the demands of the rider.

Theoretically, movement is determined by the various positions of the center of gavity with respect to the base of support. In the state of rest the center of gravity is sustained by that base. Movement is but the disturbance of that equilibrium, the members intervening to steady the mass and prevent a fall. Thus the four movements—forward, backward, to the right and to the left—always take place because the center of gravity draws the mass to one of these four directions.

In practice, a *balanced horse* is one that is light in his gaits and agile in his changes of direction.

The horse at liberty balances himself naturally. His movements are more or less easy and the mobility that he exhibits shows that he is master of his strength and can make judicious use of it. With rare exceptions, as soon as the horse is mounted this natural equilibrium is disturbed by the rider's weight, which displaces the center of gravity (two-third of this weight falls on the forehand). In addition, the voluntary or involuntary actions of the aids provoke numerous contractions so that a part of the horse's muscular power is employed in resisting the rider.

The less the horse resists his rider the better he can balance himself and the more manageable he becomes.

The capability of a horse to make proper use of his strength depends upon his conformation. A well made horse balances himself more easily under the man since his strength is transmitted to his members under the best possible mechanical conditions. But irrespective of the conformation of the horse, the rider should endeavor without delay to make him regain a natural balance, or at least a balance which approaches it. Therefore, at the beginning of his training the horse must be allowed great liberty, for if his movements are restrained he will be unable to recover this balance. The more steady, exact, and conciliating the rider is in his actions, the more confidence the horse will have and the quicker he will regain his equilibrium.

As training progresses the number of resistances will di-

minish. The horse in yielding to the aids will make better use of his strength and a better distribution of his weight; and the rider will find less difficulty in giving him the position leading to the desired movement.

LOCOMOTION. The laws of locomotion are concerned with the order in which the horse places his feet in the different movements and in the several gaits.

In superior equitation the application of these observations may lead to good results; but in secondary equitation a wider view must be taken lest the difficulties be aggravated by trying to attempt objectives not wholly practical under the conditions.

The rider need only concern himself with giving the horse the position which should precede each movement, leaving to the horse the care and time of placing his feet accordingly.

ROLE AND POSITION OF THE HEAD IN MOVEMENT. When the horse uses all of his natural means to aid himself in the execution of his movements, he employs his head and neck to balance or modify the employment of his forces. If he wishes to move forward he straightens his head to the front and stretches out his neck so as to draw the center of gravity in the direction of the movement. Or, if he wishes to stop or back, he brings in his head, shortens his neck, and thus impels the movement of the mass to the rear. In movements to the side, oblique or circular, it is again the displacement of the head and neck to the right or left which facilitates, regulates and maintains the movement.

The rider who wishes to be master of his horse should place the horse's head in such a position by means of the bit so that he may regulate its displacements and in turn, those of the neck. In this way the neck bends, shortens or stretches out, according to the impressions which the mouth receives from the rider's hand.

In order that the impression of the hand may be clearly transmitted to the horse's mouth and at the same time that the breatching may not be hindered, the horse's head should slope from the muzzle upward and rearward, and it should be made

to take this position at the ordinary gaits and in the simple, regular movements.

The more shortened the gait, the more the head should approach the vertical line; conversely, the more it is desired to increase the speed, the more the head should approach the horizontal. In both cases the position the head assumes is considered normal since it favors the slowing or the increasing of the gaits respectively.

The head may assume an exaggerated position (too close or too far from the vertical) due to defective conformation of the forehand, badly adjusted bitting, excess of sensibility in the chin grove or bars, or—and as is most frequently the case with horses that "stargaze"—because of defective conformation in some part of the hindquarters.

The rider combats the faults of position not only by a judicious use of the aids but also by the use of a milder or more severe bit; by raising or lowering the bit in the horse's mouth and by loosening or tightening the curb chain.

Thus with a "stargazer" the head should be brought in by increasing the lever arm; that is, by using a long branch bit placed low in the mouth. The horse that carried his head too low, or that is too much gathered should be fitted with a short branch bit adjusted as high in the mouth as possible.

The position of the head in the natural state is determined by the posture of the neck. When the horse is under control, the bit, with its action on the bars of the mouth, makes the head take a position to which the neck is forced to yield. The neck will therefore contract, stretch out, or bend to the right or left, according to the action of the hands.

Role and Position of the Neck. The neck is the indispensable lever for facilitating movement. Its position and its attachment to the head should be such that, while it remains supple and accepts the lateral and retrograde displacements without resistance, it should always preserve its natural stability, and even a certain degree of firmness at the base and up to its middle portion. Its direction should be identical to that

taken naturally by the horse, unmounted, when he is placed in the position of attention.

If the head and neck are raised too much the play of the shoulders will be freer but at the same time the loin and the whole hindquarters will be cramped, the haunches and hocks hindered in their action, and the displacements of the hind quarters restrained, unequal, and jerky. Consequently, the gait will lose speed and regularity.

If the neck is too low, the overcharged shoulders will render the horse heavy and difficult to guide.

Thus the neck should be neither too high nor too low. It should shorten or stretch out as the head approaches or leaves the vertical. When coming in, the head should cause the neck to bend at the poll without breaking its line; in stretching out, it should extend the neck without raising it.

With the head and neck properly placed, the reins will retain their full force, and the members of the forehand like those of the hind quarters will coordinate their actions in the movements whether collected or extended.

In determining the position to give the neck, the rider should always take into consideration the manner in which it is naturally joined on (the "set on"). Some riders make the mistake of demanding great elevation of neck from horses that naturally carry low heads. In attempting to raise the neck too high for the natural conformation of the horse the hand often stops the impulsive forces. When a position contrary to the horse's conformation is demanded the hocks and loin are cramped and there is a resultant loss of freedom in the gaits.

THE RAMENER. The ramener is simply the placing of the horse's muzzle a little in advance of the vertical of the plane of the face of the horse, the position which has just been indicated as most favoring the management of the horse; one should seek to obtain it from the moment the horses are put in double bridles.

In secondary equitation the horse is taught to take this position principally by work on straight lines, alternately extending and collecting the gaits. The rider's legs here play

an important part; their action should always precede that of the hands, for the head comes in and the neck bends only as a consequence of the forward movement, during which the horse meets the hand. The latter is held steady and low and offers to the mouth a gentle support which restrains an over extension of the neck and determines the position of the head by causing it to bend at the poll. The legs and fingers then relax and are brought into action again only should the head assume an improper position. Provided they do not hinder the impulsion, the alternate active and passive effects of the hand will soon give the neck the flexibility it should have.

Gymnastics of the Young Horse. Gymnastic work tends to develop the colt's strength and suppleness and it also serves to conquer any resistance he may offer.

Gymnastic work is practiced at all three gaits; at the walk, because the rider is steadier and has greater control over the horse while the latter is more attentive and better able to understand the movements demanded; at the trot, because from the conformation of the horse it is at this gait that the joints play most easily in lateral movements; and at the gallop, because it is the combat gait, and consequently the ultimate objective of training.

Resistances. The fatigue caused both by the work of training and the constraint imposed upon young horses during their education may occasion certain resistances. These are most apt to occur in horses having physical defects, blemishes and weaknesses, or on account of nervousness arising from awkward or misunderstood demands.

Whether the cause of these resistances be mental or physical, the joints and muscles may be strengthened and suppled by appropriate gymnastics applied to the various parts of the horse's body. The principal points of resistance are the haunches, the spinal column, the shoulders, and the mouth. Certain movements lend themselves more particularly to the suppling of certain parts; the instructor regulates their use according to the end in view.

To Obtain Engagement of the Hind Quarters and Mobility of the Haunches. The haunches are the seat of impulsion and at the same time they form a sort of rudder in the changes of direction.

The mechanism of impulsion lies in the play of the hip joint (coxo-femoral articulation). The closing of this joint leads to the engagement of the hocks under the mass (fig. 4) and allows the horse to cover more or less ground according to the energy of the extension of the propellers. Such engagement of the hocks under the mass leads to a lowering of the hindquarters —a position which greatly facilitates rapid changes of direction.

The hindquarters should be able to move with facility in a

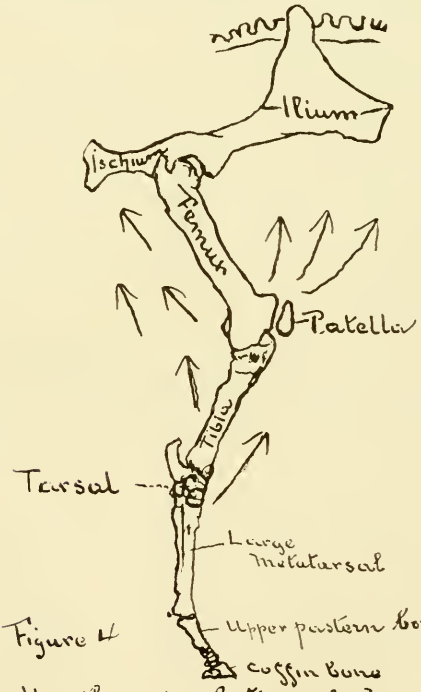


Figure 4

It is this articulation which, in more or less closing, leads the hocks to engage under the mass.

lateral direction as well, but because of his construction the horse can execute this movement only by passing the right hind foot, for example, in front of the left hind. Here again the horse must lower his croup and draw his hocks under the mass.

The movements which cause this engagement and this mobility of the haunches are: extending and collecting the gaits, halts, the broken line, the serpentine, the circle, the half turn and the half turn in reverse with smaller and smaller radius, the false gallop and backing.

Extending and Collecting the Gaits. This work includes:

Being at the walk; slow walk, walk, extended walk; from the slow walk change to the extended walk, and vice versa.

Being at the trot: Slow trot, trot, and extended trot; changing from slow trot to extended trot, and vice versa.

Being halted: Walk and halt; extended walk and halt.

Being at the walk: Taking up the extended trot; halt from the trot or extended trot.

Finally it includes the gallop departs from the trot, the walk, the halt and from backing; passing from the gallop to the trot, to the walk, halting from the gallop, extending and collecting the gallop.

During *breaking* the horse learns to obey the hand by slowing the gait, and to obey the legs by an increase of gait. This is again taken up and insisted upon until the slowing of the gait is obtained without the least movement of the head—which would indicate a struggle against the hand—and until the extension is very willing and immediate. Each time the horse fights the hand while slowing down from faster gaits, he must be put back to slowing the walk.

Obedience once obtained, attention should be paid to the *manner* in which the movements are executed; the haunches should be drawn under the mass in slowing, and the action of the hocks and loin in the extension should be vigorous. This is achieved by alternate extensions and collections brought nearer and nearer together.

After these results have been attained one should demand the most marked extensions and collections; for example, immediate halts from fast gaits.

In this work of balancing the horse between the hands and legs it is essential that these two aids never act simultaneously. The horse, in slowing should let the gait die out while moving close to the ground.

At the indication of the legs he should push himself vigorously forward. If his motions are high it is because the hand has not yielded in time to let the impulsion pass.

If the horse moves sidewise in slowing he is straightened by opposing the shoulder to the haunch.

These supplings are interspersed with periods of work on the bit at free gaits. With lazy horses one should insist especially on the promptest obedience in the extensions and with high spirited horses, in the collections.

When once this work has been well executed on the straight line it is repeated on the circle. This requires a relatively greater engagement of the interior haunch. The diameter of the circle is reduced in proportion to the progress of the horses. But the horse himself, must not be allowed to modify this diameter in accordance with the gait, that is, to make it smaller in slowing and larger in extending.

Inside the riding hall the increase and decrease of the gallop should be confined to speeds appropriate to the enclosure (not too extended). Outside, on straight lines, the speed should be varied through every form of gallop from the most collected canter to the run, and the reverse. This work well done is proof of the thorough execution of all preceding work.

If the horse bores or fights the hand he must be returned to the riding hall for work in slowing the walk and canter; the object is thus accomplished more surely and with less risk to his legs than if one were to insist on submission in the work at fast gaits.

THE HALT. THE HALF HALT. Considered from the point of view of training the object of the halt is not to stop the horse

in some position or other, but rather to teach him to balance himself by the engagement of his haunches.

The halt is effected by the action of the fingers closing on the adjusted reins. If the hocks remain out in rear or are thrown to one side to avoid an engagement, which is always difficult at first, the legs intervene to push the haunches gently under the mass. The hand remains passive.

Exercises in halting serve to gather the horse's forces, to place his head and haunches, and to make him lighter.

The halt must be practiced gradually and very gently at first. One should be very careful with horses whose necks are "upside down," who are long coupled, sway backed or too nervous. Horses of this kind are generally weak in the loin. They halt with difficulty and the remedy becomes worse than the evil. The halt must be avoided entirely with horses that are lacking in impulsion.

Summing up, halting is suitable only for horses having good loins and sufficient vigor in the haunches and hocks to stop easily on the hindquarters.

This does not apply to the *half halt*—defined in the chapter on aids—which irritates the horse less than the halt. One may therefore employ it without fear on all horses except, again, those that hold back. The result sought is to lighten the forehand, and consequently to lower the croup, without producing a slowing of the gait.

The *broken line*, *circle*, and *serpentine*, when the turns are demanded by the reins alone acting on the forehand, have the effect not only of suppling the shoulders but also of favoring the engagement of the haunches.

The same movements, when the leg pushes the haunches to the outside, give great mobility to the hindquarters. In using them one should, therefore, have in mind the end to be obtained and employ them accordingly.

Mobility of the hindquarters is desirable only in so far as there is strict obedience to the leg. Its sole object is to enable the horse to be kept straight under all circumstances.

The *half-turn*, with the radius progressively decreased, leads

to a more and more marked engagement of the haunches. The half turn on the haunches (about on the haunches) is the final expression of the half turn and demands the ultimate degree of engagement of the hocks.

The *half turn in reverse*, as the radius is decreased, tends to mobilize the haunches. The half turn (about) on the forehand, which is its limit, gives absolute mobility of the hindquarters by displacing them about the forehand.

False Gallop. The horse is prepared for work at the false gallop by the broken line at the gallop and by accentuating progressively the false turns involved in this movement. Following this, the figure of eight and serpentine are taken up.

The work on the figure of eight is commenced on a large eight inscribed in the legth of the riding hall and executed only once in a period of work (two consecutive changes of hand). When the movement is executed without excitement the horses are kept for a longer time on this large eight. When they gallop calmly and well extended the figure is made smaller little by little. The suppling should be sought for by frequent periods of work on the large eight rather than by an exaggerated closing of the figure, especially is this advisable in the case of cold-blooded horses.

Similarly, the serpentine at first consists of only one turn which is made gradually smaller as the horse progresses.

This work leads the horse himself to modify his balance and it gives the alternation of extension and engagement which is sought in all these gymnastics.

To avoid at this time the unnecessary difficulty or departing with the false gallop one should always commence by a true turn. Then, during the false turn the inside rein, by calculated opposition, maintains the inside shoulder and haunch in rear so as to avoid the change of lead. This opposition diminishes as the horse takes the false turn more willingly.

Backing. Backing often may be a punishment for a horse if, in spite of halts and half halts, he seeks to force the hand or to bear heavily on the bit, but it is a means whereby the spinal column is made supple and it helps the horse to place

himself on his haunches. Backing represents a further degree in the gymnastics of alternately reducing and increasing the base of support.

The suppling undergone by the young horse in the extension and collection of gaits will generally lead to his backing without difficulty. Sometimes, however, through pain or stubbornness he may refuse to back, he may brace himself with his haunches, contract the spinal column and resist the action of the reins.

These bad habits if left alone would result in an habitual reluctance to back. The rider should overcome them by displacing the croup with the action of the leg, or by opposing alternately each of the shoulders to the corresponding haunch. He must profit by the displacement of the haunch to resume the action of the hands.

In the execution of this movement the horse should be calm and straight. He should back slowly, at the same time be ready to move forward at the call of the legs. In the beginning it is best, especially with high spirited horses, to follow the movement of backing by again moving forward and then by rest with reins free.

When these results have been obtained, the horse should then be made to pass more freely from the forward to the backward movement and vice versa, and thus be balanced between the two. In this exercise only a few steps should be taken in each direction.

Suppling of the Spinal Column is obtained by the movements just enumerated, but chiefly, by work on a small circle executed at the gallop the speed of which is progressively increased. This is the best lateral suppling and it should be practiced frequently.

When galloping horses on the circle the instructor avoids the fatigue of prolonged work on short turns by alternately diminishing the circle for several turns, then enlarging it. The tendency on the part of the horse to slow down as the circle is diminished, must be overcome. The short turn is easy at the

slow gallop; it is the *rapid gait* at the short turn which is difficult and which must be obtained.

To Obtain Free Play of the Shoulders. The horse at liberty moves and balances himself with ease but the young horse generally becomes heavy on the hand when mounted. This change results partly from the addition of the rider's weight and partly because the horse can balance himself for movements which he himself wishes to execute but does not yet know how to balance himself for those which his rider demands.

The gymnastics best qualified to give mobility to the shoulders and lightness to the forehand include: slowing; halts; half halts; backing; the broken line and serpentine with the turns being demanded by the reins alone thus making the forehand pivot about the haunches; half-turns progressively smaller until the half turn on the haunches is reached; two tracks; and shoulder in.

Broken lines at the gallop with continually shorter turns are of especial advantage. This is the best training to render the horse supple and mobile in the gallop, easy to guide and clever on varied ground.

All these movements are demanded by the bearing rein which acts indirectly but effectively upon the shoulders.

It should be understood that the various movements enumerated above will not in themselves accomplish the desired results. The rider must keep his object constantly in mind and when resistance is met he must act with tact; that is, with more or less energy or gentleness according to the circumstances.

The various movements should be wide at the beginning in order not to discourage the horse, later they can be made progressively smaller so that finally the complete submission to the aids—necessary in individual combat—will be obtained.

The forward movement must be carefully preserved during all gymnastic work and it is always required after collected work in order to let the horse stretch himself and extend the

gait before he is rested. This avoids the danger of losing impulsion.

To Obtain Suppleness of the Jaw. Suppleness of the jaw is the guarantee of lightness; it indicates a general decontraction. When the horse's mouth is normal the gymnastic exercises which supple and strengthen him lead naturally to this mobility of the jaw. It is, in a way, the proof of his willing obedience. But some horses in spite of a relative suppleness of the rest of the body will retain an abnormal stiffness of the jaw.

Since the origin of all defenses is pain, contraction of the horse's jaw may be provoked by a bit badly adapted to his conformation, or the mouth may be too sensitive for the bit, or again the sensibility may have been deadened until the effects of the bit are no longer felt.

The first remedy consists in the proper selection and adjustment of the bit. The kind of bit, its position in the mouth, the dimensions of the branches ,the thickness of the canons, the freedom or liberty of the tongue, and the relative tightness of the curb chain, all afford the means whereby we may overcome many resistances.

Nevertheless, under the action of a brutal or even merely awkward hand the best bitted horse may acquire positions or habits which permit him to avoid the constraint of the bit, and which are therefore true defenses. In such cases it is necessary to reeducate the mouth by means of appropriate supplings, the object of which is to destroy the bad habits in order to replace them by good ones.

A horse is said to yield to the action of the hand if when in gentle contact with it he half opens the mouth under the pressure of the fingers, moves for an instant his tongue and the bits and then immediately retakes contact. The yielding should be confined to the mouth without provoking the least movement of the head or neck.

The first elements of this suppling may be taught dismounted at the halt or at the walk. However the impulsion is nil or very slight and therefore in secondary equitation it is

sometimes unwise to supple the mouth in this way. In order to obtain the best result the rider should work his horse at a free gait. By gentle contact of the hand he will induce the horse to take a confident bearing on the bit in whatever position is most familiar to the horse even though it is not the correct one. Then when this has been obtained the rider may have recourse to the "division of supports."

The division of supports means the relaxing of one or several reins while the fingers are closed on the others. The normal symmetry of the bearing of the bits is thus broken. The rider uses successively the different combinations of the reins by actions more or less close together; for example, *give and take, play the snaffle from side to side, alternate the snaffle and curb.*

These different actions tend to defeat resistances by constantly changing the bearing point in the mouth and to reduce the contraction of the muscles by their intermittent effect.

The half halt or vibrations may be executed on one or several of the reins of the combination in use, according to the kind of resistance offered by the horse, and they will lead sooner or later to the relaxation demanded.

When by repetition the horse obeys without hesitation and when all the combinations of reins lead to this same submission, the education of the mouth is finished.

The advantages of the relaxation of the jaw are reflected in the poll and neck, the muscles of which are not slow to relax. At first the neck retakes its natural position. Then as a result of progressive gymnastics it arrives at the ramener (gather), the position indispensable to easy control of the horse.

When practicing the supplings of the jaw great care must be taken to preserve impulsion. One must not reward the horse by dropping down to a slower gait, but, on the contrary, must yield and caress while extending the gait. This local gymnastic (jaw flexion) must be limited to necessity. Harmony of all the forces is the true object of training and must be kept always in mind.

Two Tracks and Shoulder-In. Two tracks executed by lateral aids is a movement that may be employed when riding the horse alone or in class.

When the horse is marching to the right hand the movement on two tracks is obtained by the use of the left rein and leg which act by pushing the shoulders and haunches toward the right; the horse is then bent away from the side toward which he moves.

In this movement the shoulders and haunches follow two parallel paths; when gaining ground to the right the members of the left lateral biped cross in front of those of the right lateral biped; when gaining ground to the left the reverse is true.

Two tracks is a useful training movement to enhance the horse's knowledge of the effects which a combination of aids may produce; it constitutes in addition an excellent gymnastic exercise for the colt.

This movement should be demanded for a short period only and on the diagonals or on inside track—i.e., away from the wall. When executed on the track, two tracks has the bad effect of teaching the horse to be guided by the wall and not by the aids. Also it frequently happens that the horse is not able to pass the outside leg in front of the inside through fear of striking the wall; but instead he passes it behind the inside leg, and this does not give the desired result.

If the displacement of the forehand in relation of the hind quarters is slightly accentuated by more pronounced action of the hand and leg, the horse passes from the gymnastic of *two tracks* to that of *shoulder-in.*

The horse is said to be on right "shoulder-in" (the right shoulder inside the arc of the circle inscribed by the spinal column) when he marches bent to the right; he is said to be on the left shoulder-in when he marches bent to the left.

In whatever direction one is moving the horse may be placed and worked alternately with the right shoulder-in and with the left shoulder-in.

The movement is executed at the commands "Right shoulder-in," "Straighten," "Left shoulder-in," "Straighten."

For example, if the horse is to be placed in the position of right shoulder-in and is to be worked most favorably in that position, the shoulders are moved off the line of march by the action of the right rein *(opening rein)* strengthened by the leg on the same side. The horse is then in the first step of a turn. As soon as he is in this oblique and circular position the line of direction previously followed is again taken up, all the while keeping the horse bent and crossing his legs. The right rein now becomes a bearing rein of opposition and acts in the direction of the left haunch. It affects the horse's whole body bending and pushing it forward and to the left. The right leg, acting slightly in rear of the girth, likewise aids in holding the haunches toward the left. The left hand, after having yielded, limits the bend of the neck and strengthens the action of the right rein; it also draws the forehand forward and to the left. The left leg acts on the girth to keep up the forward movement.

This exercise gives the horse complete suppleness and great freedom in all parts of the body. It brings about:

(1) Freedom of the shoulders, obedience to the hand, and consequent lightness in the forehand.

(2) Suppleness of the haunches, obedience to the leg, and consequent engagement of the hind quarters.

(3) Pliability of the spinal column giving harmony between forehand and haunches.

It leads to free play of the shoulders because when the horse works vigorously while thus bent, the right leg is obliged to describe a movement of rotation and to *lift* itself in order to pass in front of the left.

It leads to agility of the haunches because the right haunch is, on the contrary, obliged to *lower* itself in order to allow the right hind to pass in front of the left hind. This results in the desired engagement of the hindquarters.

It gives suppleness and pliability to the spinal column because of the continuous play of the vertebrae in all directions.

It puts the horse up to the bit because the leg acts in the

same direction as the hand obliging him to accept the tension of the rein.

It disciplines the horse to the leg because the rein, acting in the same direction as the leg, obliges him to understand and accept its action.

Shoulder-in is, therefore, the synthesis of all of the gymnastic movements that may be demanded of the horse, and it is certainly, as La Guérinière says, "The first and last of the lessons that one may give to the horse." Its execution is easy and its results excellent and quick.

One must avoid executing this movement on the track for the horse is then attracted by the track and he will seek constantly to reenter it and will only bend his neck instead of freeing his shoulders as is desired.

Shoulder-in is first demanded on the circle. Gradually the horse is made to understand it by moving him off the circle for several steps at a time; he is then rewarded, straightened and the lesson repeated. As soon as the horse understands what is asked of him and the movement is well executed at the walk, it is repeated at the trot.

For good execution of the movement it is necessary that the hand which retains the inside shoulder should act rather steadily on a short rein and not operate by any traction from front to rear.

The horse should be exercised frequently in this movement. The shoulders must be carefully alternated. Between each change he should be moved on the straight line for several steps. These supplings should be of short duration only. One should profit by the engagement of the hind legs to push the horse into a free, extended trot.

The Extended Trot. The extended trot is a very regular trot of great extension, produced by the energetic action of the haunches and the hocks. It is obtained when impulsion has been accumulated in the hindquarters by the action of the legs and the rider eases the hand, contenting himself with giving the head and neck only the support necessary to facilitate the extension of the gait.

At first it is demanded during a few strides only. As the horse becomes more vigorous, better disciplined, and better able to use his strength, this trot may be prolonged but it should not be sustained, at least in training, for more than a hundred yards. A free extended walk with loose rein should always follow the extended trot.

This gait alternated with shoulder-in makes the horse bold and light.

Obtaining Balance. In the extensions, collections and changes of gaits which have just been studied, there was always an underlying obligation on the rider to avoid contradiction of the aids by inclosing the horse between active legs and hand. The rule must be observed that only by an exact balance of hand and leg action is his impulsion carefully preserved and his submission retained. But as training progresses towards perfection, these actions tend to approach each other until finally they seem to merge into one another. The horse, thus balanced between hand and legs moves with high strides in a sort of equilibrium. This is nothing else than the "rassembler" while marching which has for its object the shortening of the animal's base of support so that he then works on a *short base*. This accentuates his mobility while necessarily reducing his speed.

When it is desired to return to an extended gait it is necessary to abandon the rassembler and to allow the impulsion to pass; then the neck stretches out, the gait is extended, and the horse works again on a *long base*.

The object of the changes of gait and the increase and decrease of speed of which we have just spoken is to oblige the horse to work on a short or long base according to circumstances and to accustom him to pass from the most collected work to the most extended as in outdoor equitation. In a word, it is to put the horse in balance.

Remarks on the Gaits. From the mechanism of the walk, trot, and gallop, one may make some observations which are very useful in training.

It is very necessary that the rider should know how to take

a certain gait, and to maintain or to change that gait. Now in the walk and trot, the lateral bipods move in parallel planes; in the gallop, on the contrary, the horse tends to travel with one haunch slightly to the side. This suffices to show the rider that in the walk and trot the horse should be held *absolutely* straight, while in the gallop he should yield towards one haunch *very slightly*.

With a young horse, therefore, whenever the rider wishes to take the gallop he should give him this natural position. On the other hand, when he wishes to pass from the gallop to the trot or walk he should straighten his horse.

The rider should also be able to obtain when desired those gaits which allow the horse to cover the most ground with the least fatigue. For the horse to expend a minimum of energy the impulsion must all act in the direction of the movement. But the horse may travel too high, too low, or both too high and too low at the same time.

The horse travels high when suppled and trained, and correctly ridden, he assumes the rassembler in marching. Then the muscles of the high, flexed neck will, in their contraction, lift the forelegs, and at the same time the hind legs, engaged under the mass, will have a similar upward action. In this position, with flexed joints, his speed is limited since the excessive elevation causes a reduction in extension. However, this position is most favorable to rapid changes of balance, and therefore of direction and gait. It finds frequent employment in secondary equitation for, in both maneuvering and individual combat, the horse should be able to work on a short base.

The horse may travel high in front and low behind. When ridden by an inexperienced rider he may hold his head high from inclination or from force. As in the preceding case, the muscles of the neck, by their contraction, lift the forelegs, but the hind legs, placed far away from the front legs, can not engage. Their motion will be perky, the spinal column will have no play, and the horse will move with great expenditure of energy and with great difficulty in the loin and hind legs.

Finally, the horse travels low when he moves with his neck

extended so that its direction approaches the horizontal. The muscles of the neck in this position draw the forelegs forward and not upward. The hindquarters under the action of the rider's legs may easily engage under the mass because the position of the neck allows the spinal column to arch and then extend in the direction of the movement. This position will therefore favor speed, and all the horse's efforts will tend to produce forward movement with a minimum of fatigue and expenditure of energy. It is this position which the rider should seek to impose on the horse whenever he wishes to work on a long base.

Some of the characteristics of the gaits were discussed under *breaking*, but considered from the view point of *training* they offer still further possibilities.

A free walk, extended without exaggeration, constitutes a rest. It is therefore an excellent reward, at the disposal of the rider, to show the horse his satisfaction with a well-executed movement, and it should be used frequently.

Furthermore, at this gait the seat is steady and the rider is in full control of his aids, therefore, he should use it when correcting faulty positions of the horse and when giving him the proper position preceding a new movement. The horse is more apt to obey in proportion to the clearness of the effects of the aids, and he is better balanced as the gait is reduced. Therefore, at the walk he is in the best possible position to receive his lessons, and each new movement or position should be taught at the walk before proceeding to the more rapid gaits. However, this gait is slow and there is little gymnastic effect on the horse's joints and muscles, especially in lateral movements.

At the gallop an excellent exercise for the spinal column may be practiced by extending and collecting the gait on straight lines. Work on two tracks at the gallop has however no particular useful effect since in this movement the horse moves by a series of bounds parallel to himself and without crossing his legs so that he expends no great effort.

The movement on two tracks at the trot is a suppling ex-

ercise which becomes more effective as the impulsion increases and the gait is extended. But in order that the left members, for example, shall open widely toward the left and the right members shall pass in front of them, the horse must move with long strides and the speed must be maintained, otherwise there would be no deep work of the muscles and no unusual play of the joints; in other words, neither suppling nor impulsion.

THE GALLOP DEPART. The importance of the gallop requires that the rider be familiar with all details of this gait, for the manner in which the horse takes it, keeps it, modifies it, or leaves it has great influence on its value. Furthermore, this one more or less complicated movement brings out all the rider's skill and requires implicit obedience on the part of the horse. In obtaining it the rider may apply all the principles set forth in training and he may demonstrate in detail the role and value of the aids. To analyze completely the gallop departs is to sum up all training. The study of this one movement will show how all others are obtained.

The horse at liberty takes the gallop in different ways according to the circumstances which provoke it; that is, by a sort of loss of balance in throwing his weight forward, or by engaging his hocks under the mass in balancing himself.

Mounted, he acts in the same way when he takes the gallop voluntarily and not in response to action of the aids, as by a cluck of the tongue, crack of the whip, fear, etc.

When the rider desires to obtain the gallop by use of the aids he must consider the effects which the hand and legs may produce. The partially trained horse can understand only a part of the effects of the aids. In order that the horse may understand that the sensation he receives calls for the gallop, he must first be placed in such a position that all confusion and hesitation are removed and only one movement is left to be executed—the one demanded. Position should always precede action, regardless of whether the horse takes the gallop through loss of balance or while in perfect balance.

The very mechanism of the gallop incidates the position

which the horse should be made to take. The gallop is characterized by one lateral pair of legs being more advanced than the other; thus in the right gallop the two right legs are more advanced than the two left legs, and vice versa.

(a) Young horses may be ignorant or imperfectly disciplined to the aids but they must nevertheless be galloped for their development and to advance their conditioning. The horse should be started on some circular movement (circle, passing through a corner, movement by the flank) where the interior lateral biped, having less ground to cover than the exterior biped, may easily be advanced more than the latter. By pushing more or less vigourously with both legs, when the horse is thus placed, the gallop will be taken naturally, especially if the rider carries his body forward and slightly to the right for the right gallop. The horse is, so to speak, surprised and thrown forward by the leg action. He more or less *falls* into the right gallop.

Since the reins do not have to act on the horse's balance this method has the advantage of leaving his head free and of putting him in the gallop before he has realized it and, at the same time(leaving him calm and preserving his impulsion.

The rider has profited by the favorable position taken by the horse himself to obtain the gallop. By this method the horse is induced to gallop and is familiarized with the gait under the rider's weight; by practice the departs become easier and the horse goes into the gallop willingly.

This method represents the first step in the lesson of the gallop.: It is sufficient to give the colt the necessary work at the gallop. In fact, it is the only one which may be employed at this time since he is ignorant of even the elementary actions of the aids.

(b) The gallop is not always taken up on curves; one should be able to take that gait without changing direction, that is, on straight lines. The work which leads to this result constitutes the second step of the gallop depart. The rider must be able to place the horse at will in the position that calls

for the gallop depart. The horse must have undergone a certain amount of training and should understand the elementary effects of the aids.

To take the right gallop one must retard the left lateral or advance the right lateral. Now to obtain that result it is sufficient either to cramp the play of the left shoulder at the same time liberating the right, to push the left haunch slightly toward the right, or to bring the right haunch forward of the left.

Any action of the rein or legs which will accomplish these results will be satisfactory although to different degrees. They will prepare the horse, according to the degree of his training, to take the desired lead.

1. To retard the left shoulder, resist with the left rein either by a light direct effect of opposition or by an indirect effect of opposition calculated according to the resistances met.

2. In joining to one of these actions of the rein that of the left leg one obtains a more or less marked displacement of the left haunch towards the right. This places it in rear of the right haunch in the position of the gallop right.

3. To obtain the gallop depart by advancing the right haunch, act with the right leg at the girth. This will engage the right hind leg under the mass *(superior equitation)*.

It must be understood that these several actions may be combined to obtain a more prompt and exact effect. After the position is once obtained it is only necessary to give the impulsion corresponding to the speed of the gallop by an equal pressure of the legs.

Taking the right lead by the resistance of the left rein is a simple, natural method. It is the one which should be employed in the first periods of training and, as a general rule, every time that there is difficulty in starting with the proper lead.

Taking the right lead by the predominating action of the left leg has the advantage of traversing the horse. At the same time if the action of the right leg is too energetic he may depart false.

Taking the right lead by the predominating action of the right leg at the girth is certainly the most correct method since the horse takes the gait without traversing; but the response to this action of the leg is a result of education rather than a natural effect. This quiet, smooth manner of taking the gallop can therefore be employed only at the end of training with calm, obedient and quite sensitive horses and by experienced riders of precision and tact.

Distinction must be made between conditioning at the gallop during *breaking* and the gymnastics of the gallop during *training*. In the latter case the rider should require a great many gallop departs on each lead in order to accustom the horse thoroughly to the action of the aids involved. The instructor must know what he can and should require, the only fixed rule being never to demand anything from the horse until he has become calm and never to stop after a badly executed movement.

Only the determining aids have been spoken of; they do not exclude the others. In regulating or strengthening the demand on the horse for a gallop depart the regulating aids contribute powerfully to the execution of the movement.

The progression proceeds from the known to the unknown. To teach the departs, only such aids are employed as the horse can understand according to the degree of his training.

The action of the horse at liberty is observed and made use of, especially in the first part of the instruction in gallop departs. Gradually this natural action is modified so that the straight is substituted for the traversed position and the exact, balanced, instantaneous depart for the uncertain and disordered.

To pass from the gallop to the trot or from the gallop to the walk the horse is replaced in an absolutely straight position. The horse then modifies the combination of leg movement and falls back into the trot or walk.

As soon as the gallop is broken one should act with a degree of firmness on the reins according to the gait desired and the promptness with which one wishes it taken. The legs must

of course be relaxed but they remain in contact ready to maintain the forward movement when the horse is installed in his new gait.

CONDITIONING. Conditioning of troop horses is only distantly related to the training of race horses. The application of rules of hygiene and the consideration given to the processes of physical development are of course the same. Progression in the work is also derived from the same principles. Conditioning the troop horse does not require his preparation for trials of speed on certain days. Rather by the rational development of all his organs and physique generally must he develop and retain throughout his service, that endurance, hardiness and agility on varied ground which are indispensable to the cavalry mount.

Therefore one cannot fix absolute rules for the conditioning of the young horse. His condition, appetite, the preservation of his legs, and his general appearance are the only regulations and guides, for training is an art and it evinces all the qualities that distinguish the true horseman.

The conditioning of the 6-year-old horse is coincident with his suppling. Logical conditioning requires daily sessions lasting between one and one-half hours as a minimum and three hours as a maximum. All instructions given in breaking which concern the general condition of the horse, i.e., the importance of proper feeding, development of muscles and lungs and the care of the legs and feet, should now be observed even more carefully, for the work is more intensive at 6 than at 5 years. The objective of the instructor is to bring all the young horses into condition so that in the month of August they can execute a march of approximately 20 miles in four hours.

The training at the gallop is likewise regulated so that at this time of the year the horses may execute a maneuver gallop of 3,000 to 4,000 yards over good ground.

Scrupulous regularity of gaits is the basis of conditioning.

The instructor assures the success of this work by employing

a reasonable schedule of periods at the trot and gallop combined with periods at the walk and at rest.

This work should continue throughout the whole year. Each week requires a slightly greater effort and a consequent development of the body. It is sometimes advisable to break the long ascent to condition by rest periods so that the horse may take hold of himself, renew his strength, energy and spirit, and prepare himself to respond to the new demands that will be made upon him. At times it is worth while to cut down or even stop the work and substitute mere walks in hand, especially in the case of horses of delicate temperament or of those that have weak legs.

A horse in good working condition presents a general appearance of health with wide-awake eye, brilliant coat, supple skin and muscles standing out; his flank is well let down and his gaits are easy, calm and indicative of strength.

JUMPING. THE HORSE MOUNTED. Skill over varied ground and boldness over obstacles also should be the objectives in a well considered plan of training.

Work on the longe over obstacles in the riding hall or out of doors is too important an aid in training to be neglected. Horses must frequently be given this work.

Practical out-of-door riding enables us to foresee the difficulties that are apt to be encountered in jumping. They may be grouped into a small number of defenses which must be fully understood in order that they may be promptly corrected.

It is a fact proven by experience that a horse usually limits his resistances to one or two defenses that he almost always sets up. When he refuses to jump the rider and the instructor should at once consider the cause and character of the defense.

If the horse has shown sufficient strength on the longe and if his jumping lessons thereon have been well conducted, the only explanation of his refusal to jump mounted lies in his rebellion against the aids or in a lack of tact on the rider's part. In the first case it is wise not to insist, but to perfect his training before continuing to jump. If it is through lack

of skill or tact of the rider it is usually sufficient to indicate to him the faulty use of the aids so that he may employ them correctly and obtain prompt obedience.

The various defenses in jumping generally fall into one of the following groups:

The horse stops short (refuses).

The horse runs out at a distance from the obstacle.

The horse runs out close to the obstacle.

(a) If the horse stops short it is through lack of impulsion or fear of the rider's hand.

When there is lack of impulsion one must leave the obstacle and again give the lesson of the legs or that of the spur if necessary. Then when the horse is felt to be anxious to go forward, bring him back to the obstacle calmly and very straight, pushing him only in the last strides. Dismount and pet him as soon as he has obeyed.

If the horse refuses through fear of the hand the bitting should be modified if necessary. The bar must be lowered or small obstacles must be chosen over which the rider may pass at the walk or slow trot. The reins should be long, thus giving the neck full freedom of action and if necessary the rider may steady himself by holding the pommel. He should continue to jump in this manner until the horse regains confidence and stretches out his head and neck.

(b) The horse that runs out at a distance from the obstacle throws himself brutally on the rider's hand; he places his head and neck in a position that enables him to avoid the authority of the bit, and escapes in any direction he can.

In this case, the rider must analyze the difficulty. He must stop his horse, calm him, replace the head and neck normally, and bring him back, holding him closely until the last moment between his active legs and taut reins.

The horse that runs out close to the obstacle may do so in one of two ways: either by escaping to the side with one shoulder in advance or by swerving off at an oblique with the haunches moving toward the flank in advance of the shoulders.

In the first case the shoulder in advance must be restrained.

This may be done by an action of the opening rein if the horse shows a mere tentative desire to swerve, or by an energetic intervention of the bearing rein if he roughly forces his shoulders out of the straight line. He must be pushed vigorously at the same time with both legs.

In the second case, if he escapes by the haunches leading to the left for example, the haunches may be held in the proper direction by the use of lateral aids to place the horse in the left "shoulder-in" (left indirect rein of opposition, left leg). It is true that the horse's head is drawn in the direction in which he wished to escape. But under the action of the left rein and leg the whole mass—and it is that which counts—is thrown toward the right. He is straightened at the last moment and the impulsion provoked by aids for the shoulder-in sends the horse boldly to the jump.

All the defenses which have just been analyzed are preceded at some point or other by a sudden abandonment, on the part of the horse, of the rider's hand. He profits by this moment of liberty to assume the position that enables him to resist. In approaching the obstacle the rider should control carefully the source of impulsion, that is, the hindquarters, with his seat and legs, and keep his reins stretched in order not to lose contact with the mouth. This is called "riding close to the horse."

PART III

APPLICATION OF THE PRINCIPLES OF EQUITATION AND HORSE TRAINING TO THE USE OF THE HORSE

Chapter I

USE OF THE HORSE

As a result of breaking the horse has become calm and energetic. His suppleness and physical strength have been developed and his resistance has been overcome by the special gymnastics of training. He recognizes the authority of the aids and is amenable to them. These acquired results must now be applied to the daily work.

The rules set forth hereafter serve as a basis for perfecting the riding instruction of the troopers.

The Horse Straight. The first use to make of his obedience to the aids is to place the horse straight. This is necessary because of the position he will occupy in ranks; and, too, when the horse is straight it is considerably easier to impose the gait desired and to regulate the speed.

The horse is straight when the left shoulder and left haunch are parallel to the right shoulder and right haunch. In equitation it is correct also to say that the horse is straight when following a curved line if his two pairs of laterals (shoulder and haunch) are placed so as to follow concentric curves.

When the horse is straight the two hind feet follow exactly the line traced by the two fore feet; the haunches and shoulders are then in a position which assures the correctness of their reciprocal play. When the two haunches move equally the impulsion is equally divided and the transpositions of weight are regular and easy. The forces emanating from the two ends (fore and hindquarters) of the horse are not at variance in their combined play. Both work toward a common end—the direct march for which the horse is perfectly adjusted.

If the horse does not move straight, all the harmonious agreement between the forces of the forehand and those of the hindquarters ceases, the correct distribution of weight is

disturbed and the ease of changing direction is impaired. Furthermore, the haunches oppose the shoulders and afford a point of support for resistance.

It is most important therefore that before undertaking anything further, the horse should be placed and maintained straight.

The actions of the reins and legs, studied previously, permit the horse to be straightened. By utilizing these aids and referring to the table of effects produced, especially to those of opposition, the rider will find all necessary means to straighten the shoulders and put the haunches into line and to maintain the horse in his proper direction. But to obtain the result which a proper application of the aids should afford, the energy of impulsion must be maintained. Easy gaits depend entirely on the activity of the haunches and on the horse's being held straight.

To Change the Gait and in a Given Gait to Change Speed. The change from one gait to another involves two principles of training.

1st. *When the legs close to move the horse forward the hand should not oppose the movement;*

2nd. *When the hand acts to moderate or curtail the impulsion the legs should not be active.*

Consequently, when passing from the halt to the walk, extending the walk, passing from the walk to the trot, or extending the trot, the rider should close his legs with more or less force according to the result sought and the sensitiveness of the horse. Simultaneously he should lower his hand and if necessary, open his fingers to permit the movement.

The hands meanwhile should be ready to resist, and even to act, to regulate the gait should the effect produced by the legs be stronger than that desired.

To extend the walk, the rider allows the horse great liberty permitting him to extend his neck but taking care not to lose contact with his mouth. In this position the horse is steadier on his legs, is better able to see his ground and is in a position favorable to movement without fatigue.

To extend the trot, one must push the horse forward and keep him true by not allowing one shoulder to be more advanced than the other. The rider may find it convenient to hold the reins separated in the two hands so as to obtain more easily the effects of opposition.

The horse that pushes ahead at the trot and takes the gallop without its being asked, is always behind the bit. Under these circumstances it is necessary to rein him in, close the legs to engender impulsion, let the neck stretch out and induce him to take a bearing on the bit.

On the other hand, to slow the gallop, the trot and the walk, or to pass from the gallop to the trot, from the trot to the walk, from the walk to the halt, or to back, the rider "fixes" the hands with the fingers closed on the adjusted reins, straightens up and carries the upper part of the body to the rear. Here also the legs should be ready to resist and to act if necessary to regulate the effect produced by the tension on the reins. However, such action is not required until the horse has commenced to yield to the action of the reins.

To Maintain a Given Gait and a Given Rate. With well balanced horses, those that move forward freely and remain submissive to the aids and respectful of the rider's hand, a soft tension on the reins is sufficient to maintain the gait and rate. To maintain lightness and to encourage the horse to relax the jaw and gently champ the bit, one must act by the play of the fingers or by the division of supports, meanwhile maintaining the impulsion.

But it frequently happens that the horse will not maintain regular gaits; he may be a puller or he may be sluggish and hold back.

Pulling may be due to a number of causes such as nervousness, pain or lack of balance. In any case the resultant resistance is felt by the rider's hand in one of two ways.

First, he may feel on his hand an inert mass, heavy to carry and difficult to displace. This is called *weight resistance.* It may be combatted by the half halt which obliges the horse to raise his forehand.

Second, the reins may transmit to the rider's fingers the feeling of the forces resulting from the muscular contractions of the jaw. These are called resistances of force and are overcome by flexions or vibrations.

Horses may take a gait slower than the one desired because of laziness, lack of strength, fear of the hand or ignorance of the positions favorable to the movement.

Laziness should be overcome by attacking vigorously with the legs or with the spurs if necessary, to reestablish a proper respect for the legs.

If it is through lack of strength then the horse's vigor should be improved by proper feeding and conditioning, so that, in time, he will maintain the gait desired under the action of the aids.

When the horse is afraid of the bit he shows his fear by raising his head and refusing the hand. He thus crushes the hindquarters and instead of engaging the haunches he jigs without gaining ground. In this case it becomes necessary to modify the bitting, to give him confidence in the hand by light play of the fingers and to encourage the extensions of the neck which lead to relaxation of the loin and increased propulsion from the hindquarters.

To sum up, a steady gait can be maintained with a trained horse by a light hand and by the play of the fingers and by never allowing the horse to pull.

A horse that fights the bit requires either a light hand that constantly maintains the same passive tension on the reins or the use of vibrations.

For the horse that is heavy on the forehand, the hand must be firm and half halts must be used. In both cases the legs should be steady but passive.

Finally, with horses that are behind the bit one must seek the cause and act accordingly either by energetic action of the aids or by attention to physical development and conditioning.

Change of Direction. A turn is the consequence of a new objective which the rider proposes to reach. The choice of a point of direction should, therefore, precede the turn.

In practice there are three ways of turning: The wide turn, the short turn and the turn in place.

1. The wide turn is executed while advancing and on the arc of a fairly large circle requiring room and time. Either the opening rein or bearing rein is used.

The opening rein indicates to the horse the new direction and the rider's legs push him in this direction. This is the most elementary of the turns in advancing and it is the one best understood by young horses. It must therefore be used not only at the outset of breaking but afterward each time the horse resists by running out, swerving around, etc.

To obtain the complete result in this turn, one should take care not to destroy the action of the determining rein by a premature action of the regulating rein. At the beginning of the movement the regulating rein must be freely ceded.

The turn by the bearing rein and the two legs is also executed while advancing. The weight of the neck leads the horse in the new direction toward which both legs push him. This is the turn most employed in riding out of doors. It is also the only one which the rider can use when holding the reins in one hand.

As in the preceding turn, it is necessary, in order to allow the determining rein its full effect and power of action, to relax the regulating rein at the start so as not to interfere with the position taken by the horse's muzzle required by the bearing rein. When riding with the reins in one hand, however, the inside rein automatically relaxes.

2. The short turn, used when the rider desires to make a quick change of direction or lacks the necessary space for a wide one, may be accomplished either by lateral or diagonal effects.

The lateral effect (right direct rein of opposition and right leg) draws the shoulders to the right and throws the haunches more or less quickly to the left. The horse faces to the right while slowing down.

This turn is of common use in training. It provides a primary gymnastic, short but energetic, to the spinal column,

shoulders and haunches. This movement also gives the horse his first lesson in the action of one leg alone and it causes him to accept the leg as an aid.

The short turn by the diagonal effect (left indirect rein of opposition and right leg to turn to the right) is the most collected, the shortest, and at the same time the most correct of the turns. The left rein pushes the shoulders to the right, the right leg pushes the haunches to the left; the horse faces to the right without slowing, except as a result of the rearward effect of the rein in opposition.

Thus, of the two wide turns, the first, using the opening rein, is the most elementary, and the second, with the bearing rein, the most used in out-door-riding. Of the two short turns the first, with lateral effect, is excellent for forcing obedience to the leg; and the second is the most rapid and correct.

The various changes of direction which may be demanded are:

The obliques (changes of hand);
Broken lines;
Movements by the flank;
The about;
The circle, the half turn (the half turn and change of hand);
The half turn in reverse (change of hand and half turn).

These movements find their military application in individual combats and in the pursuit where successive changes of objectives are demanded of the rider, often in rapid succession.

3. The turn in place is used when the rider is halted and wishes to change direction without gaining ground to the front. It is executed on the shoulders, on the haunches or on the center of gravity.

The *half turn on the shoulders* (about on the forehand) is the final word of the half turn in reverse. When executed correctly and rapidly it is proof of the horse's submission to the leg and of the mobility of his haunches.

The *half turn on the haunches* (about on the haunches) is the final word of the half turn. When executed correctly and rapidly, it is proof of the lightness of the forehand, the suppleness of the shoulders, the strength of the loin and the obedience of the haunches.

If these two movements are executed step by step, the horse will understand better the mechanism but there will be no gymnastic effect. In order that real benefit may be derived from them they must be executed briskly.

The half turns on the shoulders and on the haunches are difficult to execute perfectly. But the half turn in place, where the horse pivots on his center of gravity while carrying his shoulders to the right and his haunches to the left for example, is easy of execution and commonly used. It is obtained by the action of the left indirect rein of opposition which carries the shoulders to the right and causes the haunches to swing toward the left, and by the action of the right leg which also carries the haunches to the left.

In all changes of direction the action of the leg should precede the action of the hand, otherwise the haunches will form a point of support for resistances and cause a labored turn. The leg, where it precedes the hand, assists the latter in maintaining the new direction.

Galloping a Horse. The average quality of troop horses is such that great care must be observed in the use of rapid gaits, for their speed and endurance are naturally limited. Nevertheless, the training for the charge requires practice at the extended gallop as well as at the intermediate speeds. The instructor carefully supervises the details of this work, chooses his day and ground, and gradually teaches men and horses to take and maintain a sustained gallop.

In these exercises the rider should take care to push his horse up to the hand. The more confidence the horse takes in this bearing the better he will place himself to favor speed. Consequently, it is better at first to use a snaffle or double snaffle. The first gallops are made

easier by grouping the horses in twos or threes according to their dispositions. To gallop properly the rider must shove his feet home in the stirrups and must have the thighs against the saddle and the lower leg fixed against the horse's body. He should carry the upper part of the body slightly forward in order to relieve the horse's loin and to allow the haunches to act with more power, thus favoring speed. The seat is raised slightly in the saddle but it should be able to resume its normal position instantly when desired. This condition is fulfilled when the thighs, knees and calves remain in adherence to the saddle. The reins are separated as has been described in the school of the trooper.

The rider is taught to gradually increase the speed up to the full run, then progressively to decrease the gait whilst maintaining contact with the mouth and keeping the horse straight. These exercises, including the increase and decrease of gait should not exceed 700 to 900 yards. One must be very careful to regulate the work according to the age, development and breeding of the horses. Galloping should be followed by work periods at the walk more or less prolonged in proportion to the speed and length of the previous gallop.

The rider should take advantage of this work to learn to judge and regulate the speed of his horse, and to observe, consider and report all that goes on about him; in other words, he should acquire and maintain at all gaits the calm, unperturbed observation and judgment indispensible to the cavalry soldier in war.

Cross Country and Over Obstacles. Principles of equitation find their application in riding across country and in jumping. Boldness, secure seat, steadiness, suppleness, respect for the horse's mouth, and balance, all of which have been mentioned constantly in the education of man and horse, here play most important parts.

Boldness in jumping is the first requisite of the out-of-doors rider; it is communicated instantly and unmistakably to the horse and becomes the best guaranty of his clearing the ob-

stacle. If the rider is not keen the horse perceives it and becomes apprehensive.

The seat is the close, elastic contact of the buttocks and thighs with the horse. It assures a good hand and allows the rider use of his legs with which to control impulsion; and if the horse should make a serious mistake, the rider is enabled to avoid a fall by settling down deeply and securely into his saddle.

The seat is independent of the position of the upper part of the body. The rider may carry his body slightly forward and still be well seated or he may carry it to the rear and not be well seated.

Steadiness is defined in equitation as the absence of all involuntary or useless movement. It precludes any exaggerated position of the body, hands or legs, whether forward or to the rear.

Suppleness results from secure seat, steadiness and elasticity of the loin. It is this quality which enables the rider to appear to be part of his horse at all variations of the gaits, and it is called "going with the horse."

The laws of balance and the mechanism of the gaits require the rider when working over obstacles not to overweight the parts at work. These are the hindquarters, at the moment of taking off; and the forehand, which receives the weight at the moment of landing.

The play of the neck is more pronounced as the gait is slower and the leap more violent. In order that the horse shall use all his strength and that his mouth may not suffer, the rider's hand must give freedom to the head in accordance with the energy of the extension.

The more uneven the ground and the more varied and difficult the obstacles, the more violent and unexpected are the reactions and the more difficult it becomes to apply these rules. The necessities of maneuver and drill render their application still more difficult, for the initiative and independence of the trooper is limited.

At whatever gait employed, the rider approaches the obstacle with steady legs, increasing their pressure if necessary to assure impulsion. He inclines the body slightly forward although the buttocks remain in the saddle. The hands are held low and they accompany the movements of the neck. If necessary the fingers are opened to allow the horse to make full use of his head and neck.

Thus, given plenty of impulsion and being well enclosed between steady legs and long, stretched reins, the horse is in the best possible situation for jumping. The position might be compared to that of a horse at liberty in a "chute," the aids take the place of the sides of the chute and the impulsion of the legs substitutes for the whip.

In conclusion, the best rule for the rider in jumping is as follows: jump neither *before* the horse nor *after* the horse; jump *with* the horse.

Individual Combat. The value of the trooper in individual combat is largely dependent upon the training of his horse. Combat exercises should therefore tend to make the horse confident and fearless. These exercises should be conducted carefully; they might well follow the outline given below:

(1) Distribute a number of dummies about the riding hall in various positions (standing, kneeling, lying down), and make the horses pass beside and over them at the three gaits until they no longer take notice of them. By riding with two hands and with the reins separated, and by frequent caressing this result will be obtained quickly.

(2) Have the troopers strike the dummies with the saber at all gaits and while jumping obstacles, both at will and by command. These exercises tend to make the horses indifferent to the blows delivered by the riders. It is inevitable in spite of all precautions that during the course of combat exercises the horses will receive some jerks or saber blows. If as a result they manifest a dislike for the work they should be put back on these exercises until all trace of resistance has disappeared. It is well always to commence and to conclude the

work with several minute's exercise against the dummies.

After the horses show entire indifference and freedom, the sections should pass each other, merely crossing the blades. They imitate a melee without saber blows. The melee is conducted at first in the whole riding hall, then in half, then in a quarter, and at the three gaits.

(3) When the horses are confirmed in this work one should pass to the pursuit of mounted dummies, then to the pursuit of riders, and finally to the individual combat.

The serious demands made on the horses by these exercises require that the periods be of very short duration and that they be broken by longer periods at a free gallop with long reins and by periods of rest and utter relaxation.

A horse that shows hesitation should be stopped and put back on the dummy exercises as described above.

Chapter II

DEFENSES OF THE RIDING HORSE

The restless nature of a horse may lead to a variety of vices that should be overcome as much for the animal's preservation as for the safety of the rider. The solution of the difficulties lies more in the rider's skill than in trying to lay down a set of rules applicable to the many cases that may arise. The following is therefore given as useful advice, worthy of consideration but not to be followed blindly:

Ignorant Horses. When a horse disobeys through ignorance of what is asked of him and shows only a slight objection or a passive resistance, he is made to obey by again taking up his training at the point where he was at fault and by following thereafter the series of exercises prescribed to complete his education.

Horses that Are Afraid. It is by gentleness and patience that the horse is given confidence. When the rider sees something that might frighten his horse he should sit tight, leave his reins long, pet him, and quiet him by the voice. If the horse is continuously afraid of the same object, show it to

him often, dismount and lead him up to it rather than drive him with the spurs. If the horse seeks to turn around through fear hold him in the straight path by opposing the shoulders to the haunches.

Horses With Bad Conformation. The horse with a poor conformation naturally suffers the consequences of weakness in the parts concerned and resists the execution of movements which throw special stress on these parts. The rider should avoid immoderate requirements that would result in provoking defenses in the horse or in still further damaging the weak parts.

Stubborn Horses. To master a horse of difficult character the rider must prove that he is the stronger and he must never let an act of disobedience pass nor yield to a whim. It is rare that the horse can be induced to yield without force; on the other hand, every concession on his part should be immediately rewarded. With a horse that no longer obeys the simultaneous action of both legs it is necessary to go back to the leg lesson given with the longe and longing whip. The rigid reins might also be employed in this case.

Horses that Rear. This defense begins with the horse's halting and getting behind the bit. The first thing to do therefore is to prevent his getting behind the bit by vigorous work on straight lines to produce forward movement and throw weight on the forehand.

If the horse resists the forward movement he must be turned in place to break up the forces that enable him to rear. In swinging his haunches to the side all parts of the horse are decontracted and he is prevented from throwing his weight on the haunches. The use of the rearing reins will help to combat this defense.

Horses that Kick. When a horse has the habit of kicking, the snaffle must be used to prevent his lowering the head. At the same time he should be vigorously pushed with the legs. It is an error to hold his head high for it often happens that this defense is caused by pain in the loins and hocks and by

raising the head one would only increase the irritation and provoke the defense.

The horse that kicks at the leg should be put back on the lesson of the single leg with the longe and riding whip. Every time that he tries this defense his rider should immediately reply with a vigorous blow from the spur.

Horses that Fight the Hand. The causes that lead to this fault are numerous. They consist generally of supersensitiveness of the bars of the mouth, a badly chosen bit, or a too severe hand.

The methods indicated in training, for the education of the horse's mouth, permit these to be remedied. Seek a suitable bit, and if necessary discard the curb chain. The standing martingale with a noseband may be used advantageously in this case; also work on the longe with the reins fastened to a surcingle.

Horses that Lower the Head Against the Chest. The horse may do this through weakness, or lack of training as is often the case with colts. He must be given confidence in the hand by forward movement and extension of the neck. If the position becomes a defense the snaffle reins must be used to raise the head, if necessary by a quick sharp action from below upward. When the horse has raised his head any slowing of the gait should be prevented by action of the legs. Require but little improvement at the beginning and as soon as the horse has raised his head, even a very little, and yielded his jaw, ease the hand and pet him. This defense may also be combatted by the gag or lifting snaffle.

Horses that Star Gaze. The star gazer has a high, nearly horizontal head and a stiff jaw. A bad conformation often predisposes him to this fault but the defective position generally results from the horse having been badly ridden so that he fears the hand. To correct this fault fix the hand on the pommel of the saddle, the reins remaining stretched, close the legs to push him up to the bit, and keep the fingers tightly closed until the horse lowers his head a little; then open the fingers

immediately and yield to him. Repeat this lesson until the horse yields to the least pressure of the fingers and until he understands fully that the hand is severe only when he carries his head up and that it relaxes as soon as he places his head properly. The rules laid down in *training* for the education of the horse are applicable.

The use of the *rearing rein, running martingale,* and *Colbert reins* may assist in this case.

Excitable Horses: Horses that Jig. Horses jig and fret for numerous reasons. Some have too short a walk; training should remedy this fault. Others lack impulsion and become sulky at the pressure of the legs; they must be taught the lesson of the spur and put back in the forward movement. Still others fret and move about from excessive nervousness and cannot bear the pressure of the rank; they must be worked alone for a long time under a steady rider until they have become calm.

Most frequently this fault occurs because the horse fears the hand and does not dare to take the support or bearing on the bit that favors a free, extended gait; in this case the rider whose hand is too hard must be changed for a more tactful one, and the horse then made to extend his neck frequently to give him confidence in the hand and to induce him to carry more of his weight on the forehand. When these first results have been accomplished one should extend him for long periods at a slow trot on serpentines, circles and figures of eight in order to accustom him little by little to the actions of the aids.

Horses that Pull. To correct this fault place the horse in the walk and use half halts on one rein. When the horse yields let him straighten himself and take the original gait. Repeat this same lesson at first at the slow trot and then at the ordinary trot. The stiffness of a pulling horse is thus finally broken by forcing him to bend and to engage his hindquarters. The slow trot on circles, serpenties and broken-lines and the full halts and half halts constitute excellent gymnastics for the horse that is heavy in the forehand and heavy on the hand. *Pulley reins* might well be used on a horse of this sort.

Horses that Open the Jaw or Pass the Tongue Over the Bit. For the former, use a noseband or strap tightly buckled above or below the commissure of the lips. For the latter, in addition to the noseband use a bit with a tongue-loll of leather or rubber. The tongue may also be tied with a string.

TABLE

Showing the Successive Phases in the Education of the Young Horse

This outline is made up for average horses: it sums up the methods which have been discussed above. It is not to be followed absolutely; the requirements may be varied in accordance with the means at hand, climatic influences, the kind and quality of the animals. But it indicates, nevertheless, the normal stages in the training of the troop horse.

OBJECTS

BREAKING (5 year olds) ...
- Establishing confidence.
- Preliminary conditioning.
- Elementary education in the aids.

TRAINING (6 year olds) ...
- Conditioning.
- Suppling the young horse.
- Complete obedience to the aids.

Breaking

(4 Periods)

1st period: October 1 to December 31.
2nd period: January 1 to February 28.
3rd period: March 1 to August 14 (departure for maneuvers).
4th period: August 15 to September 30.

1ST PERIOD

(October 1 to December 31, three months.)

OBJECT
- Acclimatization.
- Gentling.
- Establishing confidence.

I. *Acclimatization*

Horses placed under observation.—Installed in the troop.—Care on arrival.—Hygiene.—Ventilation.—Rations and substitutions.—Endurance and hardiness.

II.—*Gentling*

Assignment of the same horses to the same riders.—Choice of riders.—Familiarizing the colt with the life of the garrison (noise, watering, shoeing shop, etc.).

III.—*Establishing Confidence*

Out of doors and riding hall.—Proportions in which they should be employed.

Work not mounted. Leading by the side of old horses that are mounted.

Work on the longe. Accustoming to the equipment, weight of rider, mounting lesson. Saber.

Work mounted. Walks out of doors. Organization of sections. Nature of the work. Role of the walk in the strengthening of the joints. Accustoming the horse to objects out doors. Influence of old horses as leaders.

2ND PERIOD

(January 1 to February 28, two months.)

OBJECT: Preliminary preparation for use in case of posible mobilization.

1. Preliminary conditioning.
2. Elementary education in the aids.
3. Preparing the young horse to take his place in the ranks of the mobilized troop.

I.—*Preliminary Conditioning*

Digestion. Gradually accustoming the colt to assimilate the Government ration *(watching the droppings; mashes; gruels; carrots).*

Muscling. Progressive alternation of gaits. Particular influence of each. Usefulness of varied ground.

Organization of groups and re-division of work.

Long slow work. First lessons in independence and freedom.

Leading over small obstacles; the horse skillful and bold.

Developing the lungs. The gallop; when and how to commence it. Considerations which govern this work. Race, blood, ground. Riding hall or straight lines. Progressively developing the colt's gallop to 1,500 to 2,000 yards in 5 to 6 minutes.

Appearance of the horse under work.

II.—*Elementary Education in the Aids* *

* NOTE: The simultaneous action of both legs and both hands may be taken up out of doors with the conditioning. The action of the reins provoking changes of direction is taken up in the riding hall on days when bad weather prevents going out.

(a) Simultaneous action of both legs (horse moving forward)	Passing from walk to trot.	
	Passing from halt to walk.	
	Passing from halt to trot.	
	Extending the walk and trot.	
(b) Simultaneous action of both reins (Principle of the reins always stretched)	Passing from trot to walk.	
	Passing from trot to halt.	
	Passing from trot to halt.	
	Showing the trot and walk.	
(c) Action of the single rein	Opening rein	Changing hands.
	Bearing rein	Broken line.
(d) Combined action of both legs with one or the other rein.	Opening rein and both legs.	Turns,
		Abouts,
	Bearing rein and both legs.	Half turn,
		Turn in reverse
		On circle.

Take gallop by breaking equilibrium.

III.—*Preparing the Young Horse to Take His Place in the Ranks of the Mobilized Troop*

Making him familiar with: arms and their handling, standing still and marching, the pack, the bridle, the trooper's equipment, firing.

During work out of doors: some marches in column, in line, deployment, movements by the flank, to the rear.

3RD PERIOD

(March 1 to maneuvers, 5½ months.)

OBJECT Further conditioning. More marked obedience to aids.

I.—*Further Conditioning*

Increase the outdoor work according to the condition and temperament of the horse (1½ to 2 hours).

Continue the training at the gallop to attain at the end of the period 3,000 yards in 7 to 8 minutes.

Lessons in developing self confidence out of doors. Confirming quietness and self reliance.

OBSTACLES. Lessons on the longe and at liberty; skill over varied ground; crossing small natural objects mounted, such as logs, ditches, banks, sides of the road, etc.

HYGIENE. Period of shedding (March-April). Observation of hygiene and feeding. Modification of work.

Period of feeding grass. The horse should be rather fat. Increase the grain. Cut down work outside.

Appearance of horse in condition. Eye skin, muscles, flank, legs.

II.—*More Marked Obedience to Aids*

Same riding-hall work as during the second period; in snaffle at first, in double bridle during the last month.

IN ADDITION:

1. Confirm the forward movement. First search for balance by increasing and decreasing the gaits on straight lines.
2. Mobilizing the haunches (effects of *one leg alone*) { Passing corners. Serpentines. Half turns in reverse on the forehand, etc.
3. Mobilizing the shoulders *(action of the bearing rein)* { Passing corners. Serpentines. Half turns on the haunches.
4. Extending and redressing the neck.
5. Gallop departs on straight lines by lateral aids.

4TH PERIOD

(August 15 to September 30, 1½ months.)

PERIOD OF REST. Leading; large substitutions for grain rations. Mashes, purges. Fatten the horses.

TRAINING

(4 Periods)

1st Period: October 1 to November 30.
2nd Period: December 1 to May 31.
3rd Period: June 1 to August 14 (maneuvers).
4th Period: August 15 to September 30.

1ST PERIOD

(October 1 to November 30, 2 months.)

OBJECTS { 1. Putting the horse back in work. 2. Bringing him again under the effect of the aids.

I.—*Taking up Work*

New assignment of horses to officers, noncommissioned officers, and selected men.

OUT OF DOORS. Man and horse become accustomed to each other. Taking up work gradually. Retarding influences.

Lessons on the longe and mounting lessons by new riders.

Jumping on the longe and at liberty. Fixed obstacles for the young horses.

Horse quiet and bold when alone.

II.—*Obedience to the Aids*

RIDING HALL. Gradual repetition, at first in snaffle, then in double bridle, of work of the preceding year. Putting the horse in the forward movement. Increasing and decreasing gaits on straight lines, circles, and changes of direction.

2ND PERIOD

(December 1 to May 31, 6 months.)

OBJECTS { 1. Conditioning. 2. Suppling and complete obedience to aids.

I.—*Conditioning*

OUT OF DOORS. Long periods of 1½ to 2 hours.

Increase the requirements gradually while taking notice of period of shedding and green food (as in breaking).

Attain 3,300 yards at gallop in 8 minutes, at end of period.

Work on broken ground.

Passing natural obstacles, horses mounted.

Advance as far as possible the development of self reliance, quietness and boldness. Leave the column and go in opposite direction at the walk, trot or gallop, the troop being in march or halted.

Mounting lesson out of doors.

II.—*Suppling and Complete Obedience to Aids*

RIDING HALL. Short sessions (three-fourths hour at most) with a definite object.

IMPULSION. The action of the spur.

Double bridle. Choice of bits. Accustoming the horse to the bit. Progression to follow. Various means of holding reins in training.

Repetition with double bridle of work in snaffle. Study of reins of opposition.

Mobility and engagement of hind quarters. Increasing and decreasing gaits, starts, halts, backing, half turns in reverse, half turns on shoulders, serpentines, and circles with haunches inside and outside. False gallop.

Suppleness and freedom of shoulders. Half turns. Half turns on the haunches. Serpentines and circles, the shoulders pivoting about the haunches (action of indirect reins), shoulder in.

Mobility of the jaw: Suppling, position of the head and neck favorable to training. The gather.

APPLICATION:

Balance. Work on long and short bases.

To change gait, and to change speed at a given gait.

Halt, half halt, and backing.

Gallop departs from the walk, trot, halt and backing with the horse remaining straight.

To maintain a given gait and in this gait a given speed.
Regulation gaits; work over long distances.
Change of direction: The turn.
Obedience to aids in the rank, out of doors, in the riding enclosure.
The horse bold, calm, straight, and light.
Riding with one hand.

3RD PERIOD

(June 1 to maneuvers). (2½ months)

OBJECTS
1. Conditioning.
2. Confirming obedience to aids.
3. Application of acquired results to military work.

I.—*Conditioning*

Take up gradually the work which was cut down during the period of green food. Prepare the horses to maintain the gallop for 3,000 to 3,500 yards in 10 to 12 minutes. Execute several road marches (20 to 25 miles in four hours). Exercises on the track in preparation for charge. Extended gallop of 500 to 600 yards.

II.—*Confirming Obedience to the Aids*

Same work as in the second period. Pass from work in the riding enclosure out of doors to work of section together in riding hall, cadencing and balancing the horses. Half turn on haunches, on forehand, on center of gravity. Riding with one hand at all gaits and in all directions. Work at will.

III.—*Application of Acquired Results to Military Work*

The work in the riding enclosure leads to the school of the group (single rank, double rank, ranks open and closed).

WORK WITH ARMS. Use of arms mounted. Work with dummies. Preparation for individual combat. Pursuit.

Individual missions. Messengers, flankers, patrols. Quiet to noise and firing.

SWIMMING.

HARNESS.

JUMPING IN TROOP.

4TH PERIOD

(August 15 to September 30.)

REST. Same prescriptions as at end of breaking.

PROVING THE RESULTS

Principal Points on Which Inspections Should Bear

(a) Breaking: General state of horses, conditions, legs:

Riding Hall

Quiet, regular, swinging gaits.
Obedience to aids in simple movements.
Quiet to mount.
Trial at the gallop (out of doors if the ground permits).

Out of Doors

Free, quiet gaits, individually and in troop.
Passing small obstacles in hand and mounted.
Handling arms.
Quiet to firing.

(b) Training: General state of horses, condition, legs.

Riding Hall

Quiet, regular, swinging gaits.
Individual examination, proving obedience in aids in collected movements.
Work of section together.

TRIAL AT THE GALLOP

(In riding hall if terrain outside does not permit.)

Out of Doors

Individual work.
The horse calm and straight in execution of all individual missions, (scout, flanker, courier).

JUMPING.

Work in troop. Use of arms. Proof of condition. *(March averaging 15 to 20 miles).*

APPROVED

Paris, January 9, 1912. MESSIMY, *Secretary of War.*

Q. M. C. Plant, Ft. Riley, Kan., 4-11-31—2000